

# Endemic Odonates of India

**R. Babu, K.A. Subramanian and Supriya Nandy**



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**ENDEMIC ODONATES OF INDIA**

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247

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Page 1-60

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**CONTENTS**

1.	INTRODUCTION .....	1
2.	DISCUSSION .....	37
3.	SUMMARY .....	3 9
4.	ACKNOWLEDGEMENTS .....	39
5.	REFERENCE .....	39
6.	ADDENDUM .....	49
7.	PLATES .....	50-60



## INTRODUCTION

Endemic species, which are restricted within a geographic region, are very important in characterization of biogeographic provinces. Areas with high degree of endemism are active places of speciation or refuges of past climatic or habitat changes. The recognition of endemic species areas is also important in conservation and management of biodiversity. Most of the endemic species have narrow geographic distribution and are more susceptible to extinction due to natural and anthropogenic changes in the environment. The endemic Odonata fauna of India is largely concentrated in four global biodiversity hotspots i.e., the Western Ghats, Western Himalaya, Indo-Burmese (includes Andaman Islands) and Sunda land (includes Nicobar Islands).

Mitra (2002a) listed 205 endemic species of Odonata from India. However, many species were reported from neighbouring countries after this publication. The endemic Odonata fauna of peninsular India, including the Western Ghats is better known, including its habitat distribution and threats (Subramanian, 2007; Mitra *et al.*, 2011; Subramanian *et al.*, 2011).

In the current study, endemic status of each species was determined mostly following the world distribution given by Tsuda (2000), also Davies and Tobin (1984, 1985) and Ushijima (2002). Distribution of each endemic species within India were summarized based on Fraser (1918-1953) and all other literature containing data from material examined by respective authors (Asahina, 1978, 1984a & b, 1986, 1994; Babu and Nandy, 2010a & b; Bose and Mitra, 1976; Emiliyamma, 2009; Emiliyamma and Radhakrishnan, 2006a, 2006b, 2007; Emiliyamma *et al.*, 2007; Kulkarni and Talmale, 2008; Kulkarni *et al.*, 2004, 2006a & b; Lahiri, 1976, 1977a & b, 1979, 1987; Misra, 2007; Mitra, 1995, 2002b, 2003, 2006; Mitra *et al.*, 2006; Nandy and Babu, 2012; Prasad, 1996a & b, 2004, 2007a & b; Prasad and Mondal, 2010; Prasad and Sinha, 2010; Prasad and Varshney, 1988; Sharma and Kumar, 2008; Srivastava and Das, 1987; Srivastava and Sinha, 1993, 1995, 2000, 2004; Subramanian *et al.*, 2008). In this present study, altogether 186 species and subspecies belonging to 67 genera of Odonata which are reported only from Indian territory is taken into account, investigating all the past and recent literature.

### SYSTEMATIC LIST OF ENDEMIC ODONATE SPECIES OF INDIA

Suborder ZYGOPTERA  
Superfamily COENAGRIONOIDEA  
Family COENAGRIONIDAE

1. *Aciagrion approximans* (Selys, 1876)
2. *Agriocnemis keralensis* Peters, 1981
3. *Agriocnemis pieris* Laidlaw, 1919
4. *Agriocnemis splendidissima* Laidlaw, 1919
5. *Ceriagrion coeruleum* Laidlaw, 1919
6. *Ceriagrion rubiae* Laidlaw, 1916
7. *Mortonagrion varralli* Fraser, 1920

8. *Pseudagrion andamanicum* Fraser, 1924
9. *Pseudagrion indicum* Fraser, 1924

Family PLATYCNEMIDIDAE

10. *Calicnemia pyrrhosoma* Lieftinck, 1984
11. *Calicnemia mukherjeei* Lahiri, 1976
12. *Calicnemia sudhaae* Mitra, 1994
13. *Coeliccia dorothea* Fraser, 1933
14. *Coeliccia fraseri* Laidlaw, 1932
15. *Coeliccia prakritiae* Lahiri, 1985
16. *Coeliccia rossi* Asahina, 1985
17. *Coeliccia sarbottama* Lahiri, 1987
18. *Coeliccia schmidti* Asahina, 1984
19. *Copera vittata deccanensis* Laidlaw, 1917

Family PLATYSTICTIDAE

20. *Drepanosticta annandalei* Fraser, 1924
21. *Platysticta deccanensis* Laidlaw, 1915
22. *Protosticta antelopoides* Fraser, 1931
23. *Protosticta damacornu* Terzani and Carletti, 1998
24. *Protosticta davenporti* Fraser, 1931
25. *Protosticta fraseri* Kennedy, 1936
26. *Protosticta gravelyi* Laidlaw, 1915
27. *Protosticta hearseyi* Fraser, 1922
28. *Protosticta mortoni* Fraser, 1924
29. *Protosticta rufostigma* Kimmins, 1958
30. *Protosticta sanguinostigma* Fraser, 1922

Family PROTONEURIDAE

31. *Caconeura gomphoides* (Rambur, 1842)
32. *Caconeura obscura* (Fraser, 1933)
33. *Caconeura ramburi* (Fraser, 1922)
34. *Caconeura risi* (Fraser, 1931)
35. *Caconeura t-coerulea* (Fraser, 1933)
36. *Disparoneura apicalis* (Fraser, 1924)
37. *Disparoneura quadrimaculata* (Rambur, 1842)
38. *Elattoneura atkinsoni* (Selys, 1886)
39. *Elattoneura campioni cacharensis* (Fraser, 1933)

40. *Elattoneura nigerrima* (Laidlaw, 1917)
41. *Elattoneura nihari* Mitra, 1995
42. *Elattoneura souteri* (Fraser, 1924)
43. *Elattoneura tetrica* (Laidlaw, 1917)
44. *Esme cyaneovittata* Fraser, 1922
45. *Esme longistyla* Fraser, 1931
46. *Esme mudiensis* Fraser, 1931
47. *Melanoneura bilineata* Fraser, 1922
48. *Phylloneura westermanni* (Selys, 1860)
49. *Prodasineura verticalis andamanensis* (Fraser, 1924)
50. *Prodasineura verticalis annandalei* (Fraser, 1921)

Superfamily LESTOIDEA

Family LESTIDAE

51. *Indolestes assamicus* Fraser, 1930
52. *Indolestes pulcherrimus* (Fraser, 1924)
53. *Lestes garoensis* Lahiri, 1987
54. *Lestes nigriceps* Fraser, 1924
55. *Lestes patricia* Fraser 1924
56. *Lestes praemorsus sikkima* Fraser, 1929
57. *Orolestes durga* Lahiri, 1987

Family MEGAPODAGRIONIDAE

58. *Burmargiolestes laidlawi* Lieftinck, 1960

Family SYNLESTIDAE

59. *Megalestes lieftincki* Lahiri, 1979
60. *Megalestes raychoudhuri* Lahiri, 1987

Superfamily CALOPTERYGOIDEA

Family CALOPTERYGIDAE

61. *Echo margarita tripartita* Selys, 1879
62. *Vestalis apicalis* Selys, 1873
63. *Vestalis submontana* Fraser, 1934

Family CHLOROCYPHIDAE

64. *Calocypha laidlawi* (Fraser, 1924)
65. *Libellago andamanensis* (Fraser, 1924)
66. *Libellago blanda* (Selys, 1853)
67. *Libellago balus* Hämäläinen, 2002

68. *Rhinocypha bisignata* Selys, 1853
69. *Rhinocypha hiliaryae miaoa* Lahiri and Sinha, 1991
70. *Rhinocypha perforata beatifica* Fraser, 1927
71. *Rhinocypha vitrinella* Fraser, 1935

Family EUPHAEIDAE

72. *Anisopleura lieftincki* Prasad and Ghosh, 1984
73. *Anisopleura subplatystyla* Fraser, 1927
74. *Anisopleura vallei* St. Quentin, 1937
75. *Bayadera chittaranjani* Lahiri, 2003
76. *Bayadera kali* Cowley, 1936
77. *Dysphaea ethela* Fraser, 1924
78. *Euphaea cardinalis* (Fraser, 1924)
79. *Euphaea dispar* Rambur, 1842
80. *Euphaea fraseri* (Laidlaw, 1920)

Suborder ANISOPTERA  
Superfamily AESHNOIDEA  
Family GOMPHIDAE

81. *Acrogomphus fraseri* Laidlaw, 1925
82. *Anormogomphus heteropterus* Selys, 1854
83. *Asiagomphus nilgiricus* (Laidlaw, 1922)
84. *Asiagomphus o'doneli* (Fraser, 1922)
85. *Burmagomphus cauvericus* Fraser, 1926
86. *Burmagomphus laidlawi* Fraser, 1924
87. *Burmagomphus sivalikensis* Laidlaw, 1922
88. *Cyclogomphus heterostylus* Selys, 1854
89. *Cyclogomphus vesiculosus* Selys, 1873
90. *Cyclogomphus wilkinsi* Fraser, 1926
91. *Cyclogomphus ypsilon* Selys, 1854
92. *Davidioides martini* Fraser, 1924
93. *Davidius aberrans schmidi* Asahina, 1994
94. *Davidius aberrans senchalensis* Fraser, 1926
95. *Davidius kumaonensis* Fraser, 1926
96. *Davidius malloryi* Fraser, 1926
97. *Dubitogomphus bidentatus* Fraser, 1930
98. *Gomphidia fletcheri* Fraser, 1923
99. *Gomphidia ganeshi* Chhotani, Lahiri and Mitra, 1983

100. *Gomphidia kodaguensis* Fraser, 1923
101. *Gomphidia leonorae* Mitra, 1994
102. *Gomphidia platyceps* Fraser, 1953
103. *Gomphidia t-nigrum* Selys, 1854
104. *Heliogomphus promelas* (Selys, 1873)
105. *Heliogomphus kalarensis* Fraser, 1934
106. *Heliogomphus spirillus* (Fraser, 1922)
107. *Ictinogomphus atrox* (Selys, 1854)
108. *Ictinogomphus distinctus* Ram, 1985
109. *Macrogomphus annulatus* (Selys, 1854)
110. *Macrogomphus wynaadicus* Fraser, 1924
111. *Megalogomphus bicornutus* (Fraser, 1922)
112. *Megalogomphus flavicolor* (Fraser, 1923)
113. *Megalogomphus hannyingtoni* (Fraser, 1923)
114. *Megalogomphus superbus* Fraser, 1931
115. *Merogomphus longistigma longistigma* (Fraser, 1922)
116. *Merogomphus longistigma tamaracherriensis* Fraser, 1931
117. *Microgomphus souteri* Fraser, 1924
118. *Microgomphus torquatus* (Selys, 1854)
119. *Microgomphus verticalis* (Selys, 1873)
120. *Nihonogomphus indicus* Lahiri, 1987
121. *Onychogomphus acinaces* Laidlaw, 1922
122. *Onychogomphus cacharicus* (Fraser, 1924)
123. *Onychogomphus grammicus* (Rambur, 1842)
124. *Onychogomphus malabarensis* (Fraser, 1924)
125. *Onychogomphus meghalayanus* Lahiri, 1987
126. *Onychogomphus nilgiriensis nilgiriensis* (Fraser, 1922)
127. *Onychogomphus nilgiriensis annaimallaicus* (Fraser, 1934)
128. *Onychogomphus striatus* Fraser, 1924
129. *Paragomphus echinoccipitalis* (Fraser, 1922)
130. *Phaenandrogomphus aureus* (Laidlaw, 1922)

Family AESHNIDAE

131. *Gynacantha andamanae* Yeh and Veenakumari, 2000
132. *Gynacantha arnaudi* Asahina, 1984
133. *Gynacantha bainbriggei* Fraser, 1922
134. *Gynacantha biharica* Fraser, 1927

135. *Gynacantha o'doneli* Fraser, 1922
136. *Gynacantha palampurica* Lahiri and Walia, 2007
137. *Gynacantha rammohani* Mitra and Lahiri, 1975
138. *Gynacantha rotundata* Navas, 1930
139. *Oligoaeschna andamani* Chhotani, Lahiri and Mitra, 1983
140. *Oligoaeschna khasiana* Lieftinck, 1968
141. *Oligoaeschna speciosa* Karube, 1998
142. *Periaeschna flinti assamensis* Asahina, 1981
143. *Periaeschna lebasi* Navas, 1930
144. *Petaliaeschna fletcheri* Fraser, 1927

Superfamily CORDULEGASTEROIDEA

Family CHLOROGOMPHIDAE

145. *Chlorogomphus brittoi* Navas, 1934
146. *Chlorogomphus campioni* (Fraser, 1924)
147. *Chlorogomphus fraseri* St. Quentin, 1936
148. *Chlorogomphus preciosus fernandi* Asahina, 1986
149. *Chlorogomphus schmidti* Asahina, 1986
150. *Chlorogomphus xanthoptera* (Fraser, 1919)

Family CORDULEGASTERIDAE

151. *Cordulegaster parvistigma* (Selys, 1873)

Superfamily LIBELLULOIDEA

Family CORDULIIDAE

152. *Idionyx corona corona* Fraser, 1921
153. *Idionyx corona burliyarensis* Fraser, 1924
154. *Idionyx galeata* Fraser, 1924
155. *Idionyx gomantakensis* Subramanian, Rangnekar and Naik, 2013
156. *Idionyx imbricata* Fraser, 1926
157. *Idionyx intricata* Fraser, 1926
158. *Idionyx minima* Fraser, 1931
159. *Idionyx nadganiensis* Fraser, 1924
160. *Idionyx nilgiriensis* (Fraser 1918)
161. *Idionyx periyashola* Fraser, 1939
162. *Idionyx rhinocerooides* Fraser, 1934
163. *Idionyx saffronata* Fraser, 1924
164. *Idionyx travancorensis* Fraser, 1931

165. *Macromidia donaldi* (Fraser, 1924)  
 166. *Somatochlora daviesi* Lieftinck, 1977

Family MACROMIIDAE

167. *Epophthalmia frontalis binocellata* (Fraser, 1924)  
 168. *Epophthalmia vittata vittata* Burmeister, 1839  
 169. *Macromia annaimalaiensis* Fraser, 1931  
 170. *Macromia bellicosa* Fraser, 1924  
 171. *Macromia ellisoni* Fraser, 1924  
 172. *Macromia flavovittata* Fraser, 1935  
 173. *Macromia ida* Fraser, 1924  
 174. *Macromia indica* Fraser, 1924  
 175. *Macromia irata* Fraser, 1924  
 176. *Macromia whitei* Selys, 1871

Family LIBELLULIDAE

177. *Epithemis mariae* (Laidlaw, 1915)  
 178. *Hylaeothemis indica* Fraser, 1946  
 179. *Hylaeothemis gardeneri* Fraser, 1927  
 180. *Orthetrum martensi* Asahina, 1978  
 181. *Sympetrum durum* Bartenev, 1915  
 182. *Sympetrum himalayanum* Navas, 1934  
 183. *Zygonyx iris davina* Fraser, 1926  
 184. *Zygonyx iris intermedia* Lahiri, 1987  
 185. *Zygonyx iris malabaricus* Fraser, 1926  
 186. *Zygonyx iris metallicus* Fraser, 1931

**GEOGRAPHICAL DISTRIBUTION OF ENDEMIC SPECIES**

Suborder ZYGOPTERA

Superfamily COENAGRIONOIDEA

Family COENAGRIONIDAE

*Aciagrion approximans* (Selys, 1876)

1876. *Pseudagrion microcephallum* race *approximans* Selys, *Bull. Acad. Belg.*, (2) **42** : 507.  
 1890. *Pseudagrion approximans*, Kirby, *Syn. Cat. Neur. Odon.*, p. 153.  
 1891. *Aciagrion approximans*, Selys, *Ann. Mus. Civ. Genova*, (2) **10** (30): 512.  
 1919. *Aciagrion tillyardi*, Laidlaw, *Rec. Indian Mus.*, **16** : 172, 187.  
 1919. *Enallagma assamica*, Fraser, *J. Bombay nat. Hist. Soc.*, **26** : 887-888.  
 1933. *Aciagrion approximans*, Fraser, *Fauna Brit. India, Odonata*, **1** : 342-344.

*Distribution:* Arunachal Pradesh: Tahiola (Lahiri, 1979); Assam: Manas Sanctuary (Lahiri, 1979); Himachal Pradesh: Hamirpur: Sujanpur (Babu, 2011); Manipur: Signat (Lahiri, 1977b); Meghalaya: Shillong: Tura (Laidlaw, 1924), Cherrapunje (Laidlaw, 1919), Khasi Hills (Fraser, 1933c), Barapani, Mawpat, Nongpoh, Nongstoin, Shillong, Sonapahar, Umran, Umsning, Umtham, Garampani, Thadlaskin (Lahiri, 1987); Nagaland: Naga Hills: Luwanglen (Bhasin, 1953); Sikkim: Chulung (Mitra, 1994 & 2002b); West Bengal: Jalpaiguri (Sinha and Chakraborty, 1996).

*Agriocnemis keralensis* Peters, 1981

1981. *Agriocnemis keralensis* Peters, *Dtsch. Ent. Z.N.F.*, **28** : 103-105.

*Distribution:* Goa: Porovorim (Rangnekar *et al.*, 2010); Kerala: Thiruvananthapuram (Peters, 1981), Kottayam (Emiliyamma *et al.*, 2007).

*Agriocnemis pieris* Laidlaw, 1919

1919. *Agriocnemis pieris* Laidlaw, *Rec. Indian Mus.*, **16** : 179-180.

*Distribution:* Arunachal Pradesh: Siang: Simi Bridge and Jining (Ram and Prasad, 1999; Mitra, 2006); Chhattisgarh: Bastar (Prasad, 1996a), Indravati Tiger Reserve (Mitra, 1995); Goa: Aravalem water falls, Durbata (Prasad, 1995), Savri water falls, Mayem, Derode (Rangnekar *et al.*, 2010); Karnataka: North Kanara: Castle Rock: Talewadi (Laidlaw, 1919), Coorg, South Kanara (Fraser, 1924b; 1931a & 1933c), Kudremukh National Park (Emiliyamma and Radhakrishnan, 2007); Kerala: Cochin, Malabar, Wayanad (Fraser, 1924b & 1931a), New Amarambalam Reserve Forests (Rao and Lahiri, 1983), Alappuzha, Ernakulam, Kannur, Kasaragod, Kottayam, Kozhikode, Malappuram, Wayanad (Emiliyamma *et al.*, 2007); Maharashtra: Bombay (Laidlaw, 1914), Kolhapur (Babu and Nandy, 2010a); Mizoram: Aizwal (Prasad, 2007a); Tamil Nadu: Nilgiris (Fraser, 1931a); West Bengal: Calcutta (Lahiri and Mitra, 1976; Mitra, 2002b).

*Agriocnemis splendidissima* Laidlaw, 1919

1919. *Agriocnemis splendidissima* Laidlaw, *Rec. Indian Mus.*, **16** : 180-182.

*Distribution:* Andhra Pradesh: Chittoor (Prasad, 2007b); Assam: Barpeta, Goalpara (Mitra, 1994 & 2002b); Chhattisgarh: Bastar (Prasad, 1996a); Goa: Paytale & Sada (Rangnekar *et al.*, 2010); Gujarat: Valsad: Kolak (Prasad, 2004); Himachal Pradesh: Una: Rampur (Babu, 2011); Jharkhand: Hazaribagh (Prasad and Varshney, 1988); Karnataka: North Kanara, Talewadi near Castle Rock (Laidlaw, 1919), Coorg, South Kanara (Fraser, 1931a), Kudremukh National Park (Emiliyamma and Radhakrishnan, 2007); Kerala: Cochin: Chalakudi (Laidlaw, 1919), Malabar, Wayanad (Fraser, 1931a & 1933c), Silent Valley and New Amarambalam Reserve Forests (Rao and Lahiri, 1983), Kozhikode, Wayanad (Emiliyamma *et al.*, 2007); Madhya Pradesh: Sagar (Srivastava and Suri Babu, 1997); Maharashtra: Mhow, Poona, Khandala (Fraser, 1933c), Thane: Kalyan (Prasad, 1996b), Mumbai, Pune (Babu and Nandy, 2010a); Orissa: Ganjam (Mitra, 1994 & 2002b); Tripura: Teliamura (Srivastava and Sinha, 2000; Mitra, 2002b); Tamil Nadu: Nilgiris (Fraser, 1933c); West Bengal: Hooghly, Howrah (Ram *et al.*, 1982), Jalpaiguri, Koch Bihar (Srivastava and Sinha, 1993).

***Ceriagrion coeruleum* Laidlaw, 1919**

1919. *Ceriagrion coeruleum* Laidlaw, *Rec. Indian Mus.*, **16** : 189-190.

*Distribution*: West Bengal: Darjiling: Pashok (Laidlaw, 1919).

*Remarks*: Fraser (1933c) synonymised with *Ceriagrion azureum* (Selys) but Tsuda (1991) reinstated it.

***Ceriagrion rubiae* Laidlaw, 1916**

1916. *Ceriagrion rubiae* Laidlaw, *Rec. Indian Mus.*, **12** : 132-133.

*Distribution*: Karnataka: Coorg, Kanara (Fraser, 1924b and 1931a); Coorg: Gonikopal, Somwarpet (Mitra and Babu, 2010), Kudremukh National Park (Emiliyamma and Radhakrishnan, 2007); Kerala: Chalakkudi (Laidlaw, 1916), Malabar (Fraser, 1924b and 1931a), Kannur, Kasaragod (Emiliyamma *et al.*, 2007); Maharashtra: Khandala (Fraser, 1924b); Orissa: Koraput (Srivastava and Das, 1987); Tamil Nadu: Nilgiris (Fraser, 1924b).

***Mortonagrion varralli* Fraser, 1920**

1920. *Mortonagrion varralli* Fraser, *J. Bombay nat. Hist. Soc.*, **27** : 148.

*Distribution*: Goa: North Goa (Kulkarni and Talmale, 2008), Cotigao (Rangnekar *et al.*, 2010); Kerala: Malabar: Vayitri Ghat (Fraser, 1931a), Kannur, Kozhikode, Malappuram, Wayanad and Thiruvananthapuram (Emiliyamma *et al.*, 2007); Maharashtra: Bombay: Vihar and Pawai Lakes (Fraser, 1920).

***Pseudagrion andamanicum* Fraser, 1924**

1924. *Pseudagrion andamanicum* Fraser, *Rec. Indian Mus.*, **26** : 411-412.

*Distribution*: Andaman & Nicobar Islands: Andaman Islands: Mt. Harriet (Fraser, 1924a & 1933c), South Andaman (Chhotani *et al.*, 1983), Car Nicobar and Great Nicobar (Hämäläinen *et al.*, 1999), Little Andaman (Ram *et al.*, 2000).

***Pseudagrion indicum* Fraser, 1924**

1924. *Pseudagrion indicum* Fraser, *Rec. Indian Mus.*, **26** : 495-497.

*Distribution*: Goa: Margao (Prasad, 1995), Derode (Rangnekar *et al.*, 2010); Karnataka: Coorg, Kanara (Fraser, 1924b), Kudremukh National Park (Emiliyamma and Radhakrishnan, 2007); Kerala: Malabar (Fraser, 1931a), Kannur, Kozhikode (Emiliyamma *et al.*, 2007); Tamil Nadu: Nilgiri Hills: Nadgani (Fraser, 1924b).

Family: PLATYCNEMIDIDAE

***Calicnemia pyrrhosoma* Lieftinck, 1984**

1984. *Calicnemia carminea pyrrhosoma* Lieftinck, *Odonatologica*, **13** : 360.

*Distribution*: Uttarakhand: Sahastradhara, Dehra Dun (Lieftinck, 1984).

***Calicnemia mukherjeei* Lahiri, 1976**

1976. *Calicnemia mukherjeei* Lahiri, *Odonatologica*, **5** : 273-276.

*Distribution*: Meghalaya: Khasi Hills, Shillong, Barapani roadside (Lahiri, 1976 & 1987).

***Calicnemia sudhaae* Mitra, 1994**

1994. *Calicnemia sudhaae* Mitra, *Rec. zool. Surv. India, Occ. Paper No.* **166** : 28.

*Distribution:* Mizoram: Terei (Dampa WLS), Bung (Mitra, 1994 & 2002b).

***Coelliccia dorothea* Fraser, 1933**

1933. *Coelliccia dorothea* Fraser, *J. Bombay nat. Hist. Soc.*, **36** : 466-467.

*Distribution:* West Bengal: Duars: Huldibari Tea estate (Fraser, 1933a).

***Coelliccia fraseri* Laidlaw, 1932**

1932. *Coelliccia fraseri* Laidlaw, *Rec. Indian Mus.*, **34** : 14-15.

*Distribution:* Meghalaya: Shillong (Laidlaw, 1932), Khasi Hills (Fraser, 1932), Mawpat, Mawphlong, Barapani, Shillong, Weiloi (Lahiri, 1987).

***Coelliccia prakritiae* Lahiri, 1985**

1985. *Coelliccia prakritiae* Lahiri, *Rec. zool. Surv. India*, **82** : 62-65.

*Distribution:* Arunachal Pradesh: Namdhapa Sanctuary: Gibbons land, near Miao (Lahiri, 1985).

***Coelliccia rossi* Asahina, 1985**

1985. *Coelliccia rossi* Asahina, *Chô Chô*, **8** (2) : 7-9.

*Distribution:* Assam : Ledo (Asahina, 1985a).

***Coelliccia sarbottama* Lahiri, 1987**

1987. *Coelliccia sarbottama* Lahiri, *Rec. zool. Surv. India, Occ. Paper No.* **99** : 86-87.

*Distribution:* Meghalaya: Garo Hills: Wageasi (Lahiri, 1987).

***Coelliccia schmidti* Asahina, 1984**

1984. *Coelliccia schmidti* Asahina, *Trans. Shikoku Ent. Soc.*, **16** : 6.

*Distribution:* Manipur: Kohnu, Chabong (Asahina, 1984a).

***Copera vittata deccanensis* Laidlaw, 1917**

1917. *Copera vittata deccanensis* Laidlaw, *Rec. Indian Mus.*, **13** : 338-339.

*Distribution:* Andhra Pradesh: Mahbubnagar (Prasad, 2007b); Goa: Paytale & Sada (Rangnekar *et al.*, 2010); Karnataka: Coorg, South Kanara (Fraser, 1924b & 1931a), Kudremukh National Park (Emiliyamma and Radhakrishnan, 2007); South-western Karnataka (Subramanian *et al.*, 2008); Kerala: Parambikulam (Laidlaw, 1917b), Malabar, Wayanad (Fraser, 1924b & 1931a), New Amarambalam Reserve Forests (Rao and Lahiri, 1983), Ernakulam, Idukki, Kannur, Kozhikode, Palakkad (Parambikulam Wildlife Sanctuary) (Emiliyamma and Radhakrishnan, 2000; Emiliyamma *et al.*, 2007); Maharashtra: Nagpur: Pench National Park (Kulkarni *et al.*, 2004), Chandrapur: Tadoba Andheri Tiger Reserve and Mumbai: Sanjay Gandhi National Park (Kulkarni *et al.*, 2006a & b), Pune (Babu and Nandy, 2010a); Tamil Nadu: Anaimalai (Fraser, 1933b), Nilgiris (Fraser, 1924b & 1931a), Tirunelveli: Courtallam Falls (Palot and Soniya, 2000).

## Family: PLATYSTICTIDAE

***Drepanosticta annandalei* Fraser, 1924**

1924. *Drepanosticta annandalei* Fraser, *Rec. Indian Mus.*, **26** : 412-413.

*Distribution*: Andaman & Nicobar Islands: South Andaman: Mt. Harriet (Fraser, 1924a), Hope Town (Ponighat), Mannar Ghat: Wright Myo, (Chhotani *et al.*, 1983).

***Platysticta deccanensis* Laidlaw, 1915**

1915. *Platysticta maculata deccanensis* Laidlaw, *Rec. Indian Mus.*, **11** : 388.

1917. *Platysticta deccanensis*, Laidlaw, *Rec. Indian Mus.*, **13** : 340.

*Distribution*: Karnataka: Coorg: Makut, Thora (Subramanian, Pers. obs.); Kerala: Cochin: Kavalai (Laidlaw, 1915), Travancore, Trichur, Kovalam (Fraser, 1924b), Trivandrum: Kallar; Ernakulam: Thatekkad (Subramanian, Pers. obs.); Tamil Nadu (Emiliyamma, 2009) but exact locality unknown

***Protosticta antelopoides* Fraser, 1931**

1931. *Protosticta antelopoides* Fraser, *Rec. Indian Mus.*, **33** : 467-468.

*Distribution*: Kerala: Munnar (Fraser, 1931a), Kozhikode, Wayanad (Emiliyamma *et al.*, 2007).

***Protosticta damacornu* Terzani and Carletti, 1998**

1998. *Protosticta damacornu* Terzani and Carletti, *Odonatologica*, **27**(4) : 481-482.

*Distribution*: Meghalaya: East Khasi Hills: Umran 33 km N of Shillong (Terzani and Carletti, 1998).

***Protosticta davenporti* Fraser, 1931**

1931. *Protosticta davenporti* Fraser, *J. Bombay nat. Hist. Soc.*, **35** : 70-71.

*Distribution*: Himachal Pradesh: Chamba: Khajjiar (Babu and Nandy, 2010b); Kerala: Munnar (Fraser, 1931a), Trivandrum: Kallar, Ponmudi, Chathancode (Subramanian, pers. obs.); Kollam: Kolathupuzha (Subramanian, pers. obs.); Tamil Nadu: Anaimalai and Mudis Hills (Fraser, 1931b); Uttarakhand: Dehra Dun (Kumar and Prasad, 1981).

***Protosticta fraseri* Kennedy, 1936**

1936. *Protosticta fraseri* Kennedy, *Proc. Roy. Ent. Soc. Lond.*, (B) **5** (4) : 67-71.

*Distribution*: Assam (Kennedy, 1936; Tol, 2000; Garrison *et al.*, 2003)

*Remarks*: Kennedy (1936) mentioned only Assam, exact locality unknown.

***Protosticta gravelyi* Laidlaw, 1915**

1915. *Protosticta gravelyi* Laidlaw, *Rec. Indian Mus.*, **11** : 389-390.

*Distribution*: Goa: Savri water falls, Brahmakarmali (Rangnekar *et al.*, 2010); Karnataka: Coorg: Makut above the Barapole River; North Kanara: Castle Rock: Talewadi (Laidlaw, 1917b; Fraser, 1924b); Kerala: Cochin: Kavalai (Laidlaw, 1915), Malabar (Nilambur and

Vayitri (Fraser, 1931a & 1933c), Kannur, Kozhikode (Emiliyamma *et al.*, 2007); Maharashtra: Kolhapur (Babu and Nandy, 2010a); Tamil Nadu: Nilgiri Hills: Burliyar, Gudalur and Kallar (Fraser, 1931a & 1933c).

***Protosticta hearseyi* Fraser, 1922**

1922. *Protosticta hearseyi* Fraser, *Rec. Indian Mus.*, 24 : 5-6.

*Distribution:* Goa: Paytale & Sada, Derode (Rangnekar *et al.*, 2010); Kerala: New Amarambalam Reserve Forests (Rao and Lahiri, 1983), Travancore (Fraser, 1931a); Tamil Nadu: Anaimalai and Mudis Hills (Fraser, 1931a & 1931b), Nilgiri Hills: Gudalur (Fraser, 1922a).

***Protosticta mortoni* Fraser, 1924**

1924. *Protosticta mortoni* Fraser, *Rec. Indian Mus.*, 26 : 500-501.

*Distribution:* Karnataka: Coorg: Sampaji Ghat (Fraser, 1924b); Kerala: Malabar (Fraser, 1931a & 1931b), Wayanad (Emiliyamma *et al.*, 2007); Maharashtra: Mumbai: Salsette Island (Fraser, 1931b & 1933c).

***Protosticta rufostigma* Kimmins, 1958**

1958. *Protosticta rufostigma* Kimmins, *Bull. British Mus. nat. Hist. (Ent.)*, 7 (7) : 349-350.

*Distribution:* Tamil Nadu: Tinnevely (= Now Tirunelveli): Naraikadu (Kimmins, 1958).

***Protosticta sanguinostigma* Fraser, 1922**

1922. *Protosticta sanguinostigma* Fraser, *Rec. Indian Mus.*, 24 : 6-7.

*Distribution:* Karnataka: Coorg: Hallery, Mercarra; Mangalore Ghat, South Kanara (Fraser, 1924b & 1931a); Kerala: Malabar: Dhoni Forest (Fraser, 1924b), Wayanad: Vayitri and Nilambur Ghats (Fraser, 1931a & 1933c), Kozhikode and Wayanad (Emiliyamma *et al.*, 2007); Tamil Nadu: Nilgiri Hills: Coonoor road (Fraser, 1922a), Burliyar and Kallar rivers; Madras: Chengleput: Kambakkam Hill (Fraser, 1924b).

Family: PROTONEURIDAE

***Caconeura gomphoides* (Rambur, 1842)**

1842. *Argia gomphoides* Rambur, *Hist. nat. Ins. Neuropt.*, p. 256.

1860. *Alloneura gomphoides*, Selys, *Bull. Acad. Belg.* (2) 10: 448.

1886. *Disparoneura gomphoides*, Selys, *Mem. Cour.*, 38 : 171.

1917. *Indoneura gomphoides*, Laidlaw, *Rec. Indian Mus.*, 13 : 347-348.

1984. *Caconeura gomphoides*, Davies & Tobin, *The Dragonflies of the World: A systematic list of the extant species of Odonata*, 1: 108.

*Distribution:* Tamil Nadu: Nilgiri Hills: Ooty (Fraser, 1922 a & 1924b; Bhasin, 1953).

**Remarks:**

1) Fraser (1933c) clearly mentions that *C. gomphoides* is "Confined to the grassy uplands of the Nilgiri Hill at an altitude of 7,000 to 7500 ft., from May to July". Further he states that

“Gregarious in habits, large colonies being found clinging to stems on the banks of the small moor- streams in which insect breeds”. Here moor streams are peat bogs. The report of the species in Laidlaw’s 1917b paper does not mention the habit or habitat or other collection details (who, when etc.). The locality Talewadi is in Uttara Kannada (north Kanara) district close to Castle Rock, which is about 700m in altitude. The area has evergreen and semi evergreen forests and do not have peat bogs or marshes. Interestingly, the photograph of wing of *C. gomphoides*, in Laidlaw’s 1917b paper (Plate XV) matches the description of *C. ramburi* (only single row of cells distal to the pterostigma between the costa and radius instead of two rows in *C. gomphoides*). Hence the report of *C. gomphoides* in Talewadi by Laidlaw is doubtful and can only be confirmed by studying Laidlaw’s collection. Till then the record from Talewadi (Uttara Kannada, Karnataka) is kept as doubtful.

2) The report of the species from Kotgarh, Orissa (Mitra, 2002b) is also not substantiated by recent collections from the same locality. The *Caconeura* sp. present in this locality is identified as *C. ramburi* from the collection of Manoj V. Nair by the second author (KAS).

***Caconeura obscura* (Fraser, 1933)**

1933. *Indoneura obscura* Fraser, *Fauna Brit. India, Odonata*, 1 : 257-258.

1984. *Caconeura obscura*, Davies & Tobin, *The Dragonflies of the World: A systematic list of the extant species of Odonata*, 1: 108.

*Distribution: Orissa:* Koraput (Fraser, 1933c), Koropur Ghat, Jaipur (Kimmins, 1966).

***Caconeura ramburi* (Fraser, 1922)**

1922. *Indoneura ramburi* Fraser, *Rec. Indian Mus.*, 24 : 2-3.

1984. *Caconeura ramburi*, Davies & Tobin, *The Dragonflies of the World: A systematic list of the extant species of Odonata*, 1: 108.

*Distribution:* Karnataka: Coorg, Mysore (Fraser, 1924b, 1931a & 1933c), BR Hills (Collection: Subramanian); Kerala: Malabar (Fraser, 1931a), Kollam, Kozhikode (Emiliyamma *et al.*, 2007); Maharashtra: Phansad WLS, Pench Tiger Reserve (Collection: Subramanian); Orissa: Similipal Tiger Reserve (Collection: Manoj V. Nair); Tamil Nadu: Nilgiri Hills: Coonoor, Ootacamund (Fraser, 1922a; Kimmins, 1966), Kallar (Bhasin, 1953), Anaimalai and Mudis Hills, Shevaroy Hills (Fraser, 1931a & 1933c).

***Caconeura risi* (Fraser, 1931)**

1931. *Indoneura risi* Fraser, *Rec. Indian Mus.*, 33 : 469-471.

1984. *Caconeura risi*, Davies & Tobin, *The Dragonflies of the World: A systematic list of the extant species of Odonata*, 1: 108.

*Distribution:* Kerala: South Malabar: Tamaracherri (Fraser, 1931a), Kannur, Kottayam, Kozhikode, Thiruvananthapuram (Emiliyamma *et al.*, 2007).

***Caconeura t-coerulea* (Fraser, 1933)**

1933. *Indoneura t-coerulea* Fraser, *Fauna Brit. India, Odonata*, 1 : 256.

1984. *Caconeura t-coerulea*, Davies & Tobin, *The Dragonflies of the World: A systematic list of the extant species of Odonata*, 1: 108.

*Distribution*: Tamil Nadu: Nilgiri Hills: Mettupalayam Ghat (Fraser, 1933c).

***Disparoneura apicalis* (Fraser, 1924)**

1924. *Chloroneura apicalis* Fraser, *Rec. Indian Mus.*, 26 : 501-503.

1984. *Disparoneura apicalis*, Davies & Tobin, *The Dragonflies of the World: A systematic list of the extant species of Odonata*, 1: 109.

*Distribution*: Karnataka: Coorg: Banks of the Cauvery near Fraserpet (Fraser, 1924b); Kerala: Kuruva Islands, Wayanad (Photographic record of Dr. Francy Kakkssery, St. Thomas College, Trichur, Kerala).

***Disparoneura quadrimaculata* (Rambur, 1842)**

1842. *Argia quadrimaculata* Rambur, *Hist. nat. Ins. Neuropt.*, p. 255.

1860. *Disparoneura quadrimaculata*, Selys, *Bull. Acad. Belg. (2)* 10: 446.

1917. *Chloroneura quadrimaculata*, Laidlaw, *Rec. Indian Mus.*, 13 : 344.

1984. *Disparoneura quadrimaculata*, Davies & Tobin, *The Dragonflies of the World: A systematic list of the extant species of Odonata*, 1: 109.

*Distribution*: Chhattisgarh: Bastar (Prasad, 1996a); Goa : Mayem, Cadval (Rangnekar *et al.*, 2010); Gujarat: Valsad: Dandi (Prasad, 2004); Jharkhand: Hazaribagh (Mitra, 2002b); Karnataka: Coorg, South Kanara, Mysore (Fraser, 1924b, 1931a & 1933c); Madhya Pradesh: Hooshangabad: Bagra (Fraser, 1919a), Sagar (Srivastava and Suri Babu, 1997), Hoshangabad (Mishra, 2007; Prasad and Mishra, 2009); Maharashtra: Nagpur; Satara: Yenna Valley: Medha (Laidlaw, 1915 & 1917b), Mahabaleswar, Poona, Satara (Fraser, 1924b; Fraser, 1931a), Satara (Prasad, 1996b), Nagpur: Pench National Park (Kulkarni *et al.*, 2004), Amravati: Melghat Tiger Reserve (Kulkarni and Prasad, 2005), Chandrapur: Tadoba-Andhari Tiger Reserve and Mumbai: Sanjay Gandhi National Park (Kulkarni *et al.*, 2006a & b), Ahmednagar, Pune, Poladpur (Babu and Nandy, 2010a); Rajasthan: Mt. Abu : Nakki Lake (Tyagi and Miller, 1991); West Bengal: Bankura (Mitra, 1994 & 2002b).

***Elattoneura atkinsoni* (Selys, 1886)**

1886. *Disparoneura atkinsoni* Selys, *Mem. Cour.*, 38 : 168.

1966. *Elattoneura atkinsoni*, Kimmins, *Bull. Brit. Mus. nat. Hist. (Ent.)*, 18 : 192.

*Distribution*: Meghalaya: Khasi Hills: Shillong (Fraser, 1919b & 1933c) and Jaintia Hills: Mawpat, Myllem, Pynursla, Shillong, Umsning, Umtynger, Weiloi, Jowai, Thadlaskin (Lahiri, 1987).

***Elattoneura campioni cacharensis* (Fraser, 1933)**

1933. *Disparoneura campioni cacharensis* Fraser, *Fauna Brit. India, Odonata*, 1 : 244.

1984. *Elattoneura campioni cacharensis*, Davies & Tobin, *The Dragonflies of the World: A systematic list of the extant species of Odonata*, 1: 110.

*Distribution*: Assam: Cachar (Fraser, 1933c).

***Elattoneura nigerrima* (Laidlaw, 1917)**

1917. *Disparoneura nigerrima* Laidlaw, *Rec. Indian Mus.*, **13** : 346-347.

1984. *Elattoneura nigerrima*, Davies & Tobin, *The Dragonflies of the World: A systematic list of the extant species of Odonata*, **1**: 110.

*Distribution*: Madhya Pradesh: Mhow (Fraser, 1924b); Maharashtra: Nagpur (Laidlaw, 1917b), Poona, (Fraser, 1924b), Satara (Fraser, 1933c), Akola, Chandrapur, Nanded, Solapur (Babu and Nandy, 2010a).

***Elattoneura nihari* Mitra, 1995**

1995. *Elattoneura nihari* Mitra, *Fauna of Indravati Tiger Reserve, Conservation Area Series*, No. **6** : 40-41.

*Distribution*: Madhya Pradesh: Chhindwara (Mitra, 1995).

***Elattoneura souteri* (Fraser, 1924)**

1924. *Disparoneura souteri* Fraser, *Rec. Indian Mus.*, **26** : 521-522.

1966. *Elattoneura souteri*, Kimmins, *Bull. Brit. Mus. nat. Hist. (Ent.)*, **18** : 214.

*Distribution*: Karnataka: Coorg, South Kanara (Fraser, 1924b & 1931a); Kerala: South Malabar: Tamaracherri (Fraser, 1931a).

***Elattoneura tetrica* (Laidlaw, 1917)**

1917. *Disparoneura tetrica* Laidlaw, *Rec. Indian Mus.*, **13** : 345-346.

1984. *Elattoneura tetrica*, Davies & Tobin, *The Dragonflies of the World: A systematic list of the extant species of Odonata*, **1**: 111.

*Distribution*: Goa: Colva Beach (Prasad, 1995), near Molem Sanctuary (Kulkarni and Talmale, 2008); Karnataka: North Kanara: Talewadi (Laidlaw, 1917b); Coorg, Nagarhole, South Kanara (Fraser, 1924b & 1931a); Kerala: Malabar (Fraser, 1931a).

***Esme cyaneovittata* Fraser, 1922**

1922. *Esme cyaneovittata* Fraser, *Mem. Dept. Agric. India (Ent.)*, **7** : 45- 46.

*Distribution*: Kerala: Travancore (Fraser, 1931a); Tamil Nadu: Palni Hills: Kodaikanal (Fraser, 1922c & 1924b), Anaimalai and Mudis Hills, (Fraser, 1931a).

***Esme longistyla* Fraser, 1931**

1931. *Esme longistyla* Fraser, *Rec. Indian Mus.*, **33** : 471-472.

*Distribution*: Karnataka: Coorg: Peraje (Fraser, 1931a & 1933c).

***Esme mudiensis* Fraser, 1931**

1931. *Esme mudiensis* Fraser, *Rec. Indian Mus.*, **33**: 472-473.

*Distribution*: Kerala: Munnar (Fraser, 1931a), Trivandrum: Kallar, Ponmudi, Peppara, Neyyar, Chemunji; Kollam: Kolathupuzha, Shendurani; Idukki: Vandithavalam (Subramanian. Pers. obs); Tamil Nadu: Anaimalai and Mudis Hills (Fraser, 1931a).

***Melanoneura bilineata* Fraser, 1922**

1922. *Melanoneura bilineata* Fraser, *Mem. Dept. Agric. India (Ent.)*, 7: 55.

*Distribution:* Karnataka: Coorg: Sidapur, Sampaji River, Santikupa, Mercara (Fraser, 1922c, 1924b, 1931a); Kerala: Malabar: Tamaracherri Ghat (Fraser, 1933c), Kozhikode (Emiliyamma *et al.*, 2007).

***Phylloneura westermanni* (Selys, 1860)**

1860. *Alloneura westermanni* Selys, *Bull. Acad. Belg. (2)* 10: 447.

1886. *Disparoneura westermanni*, Selys, *Mem. Cour.*, 38 : 171.

1922. *Phylloneura westermanni*, Fraser, *Rec. Indian Mus.*, 24 : 3-4.

*Distribution:* Karnataka: Coorg: Sampaji Ghat (Fraser, 1924b); Kerala: Malabar: Tamaracherri Ghat (Fraser, 1933c), Kozhikode, Wayanad (Emiliyamma *et al.*, 2007); Tamil Nadu: Nilgiri Hills: Gudalur (Fraser, 1922a; Bhasin, 1953), Burliyar (Fraser, 1924b).

***Prodasineura verticalis andamanensis* (Fraser, 1924)**

1924. *Caconeura verticalis andamanensis* Fraser, *Rec. Indian Mus.*, 26 : 412.

1983. *Prodasineura verticalis andamanensis*, Chhotani *et al.*, *Rec. zool. Surv. India*, 80 : 472-476.

*Distribution:* Andaman & Nicobar Islands: South Andaman (Fraser, 1924a), Mannar Ghat: Wright Myo (Chhotani *et al.*, 1983), Port Blair, Gandhi Park; North Andaman: Kalpong HEPA (Ram *et al.*, 2000).

***Prodasineura verticalis annandalei* (Fraser, 1921)**

1921. *Caconeura annandalei* Fraser, *J. Bombay nat. Hist. Soc.*, 27 : 543-544.

1924. *Caconeura verticalis annandalei*, Fraser, *Rec. Indian Mus.*, 26 : 503-504.

1966. *Prodasineura verticalis annandalei*, Kimmins, *Bull. Brit. Mus. nat. Hist. (Ent.)*, 18 : 178.

*Distribution:* Andhra Pradesh: Nalgonda (Prasad, 2007b); Goa: Mayem (Rangnekar *et al.*, 2010); Karnataka: Coorg, South Kanara (Fraser, 1924b & 1931a); Kerala: Malabar (Fraser, 1931a), Kozhikode, Palakkad (Parambikulam WLS) (Emiliyamma *et al.*, 2007); Maharashtra: Mahabaleshwar (Fraser, 1921a); Tamil Nadu: Anaimalai and Mudis Hills, Bolovampattis, Nilgiri Hills, South of Madras (Fraser, 1924b & 1931a).

## Superfamily LESTOIDEA

## Family LESTIDAE

***Indolestes assamicus* Fraser, 1930**

1930. *Indolestes assamica* Fraser, *J. Bombay nat. Hist. Soc.*, 34 : 104.

1984. *Indolestes assamicus*, Davies & Tobin, *The Dragonflies of the World: A systematic list of the extant species of Odonata*, 1: 36.

*Distribution:* Meghalaya: Shillong (Kimmins, 1966).

***Indolestes pulcherrimus* (Fraser, 1924)**

1924. *Ceylanicolestes pulcherrima* Fraser, *Rec. Indian Mus.*, 26 : 487-489.

1930. *Ceylonolestes pulcherrima*, Fraser, *J. Bombay nat. Hist. Soc.*, **34** : 98-99.

1984. *Indolestes pulcherrimus*, Davies & Tobin, *The Dragonflies of the World: A systematic list of the extant species of Odonata*, **1**: 37.

*Distribution*: Karnataka: Coorg: Hoskoti, Mercarra: Hallery estate (Fraser, 1924b).

***Lestes garoensis* Lahiri, 1987**

1987. *Lestes garoensis* Lahiri, *Rec. zool. Surv. India, Occ. Pap. No.* **99** : 66-67.

*Distribution*: Manipur: Moreh, Ukurul (Lahiri, 1987; Mitra, 2002b); Meghalaya: Rongrengiri (Lahiri, 1987).

***Lestes nigriceps* Fraser, 1924**

1924. *Lestes nigriceps* Fraser, *Mem. Dept. Agric. India (Ent.)*, **8** : 85.

*Distribution*: Bihar: Pusa (Fraser, 1930a).

***Lestes patricia* Fraser 1924**

1924. *Lestes patricia* Fraser, *Rec. Ind. Museum*, **26** : 486.

*Distribution*: Karnataka: Coorg: Virajpet (Fraser, 1924b).

***Lestes praemorsus sikkima* Fraser, 1929**

1929. *Lestes praemorsa sikkima* Fraser, *J. Bombay nat. Hist. Soc.*, **33** : 843-844.

2000. *Lestes praemorsus sikkima*, Tsuda, *A distributional list of World Odonata*, p. 63.

*Distribution*: West Bengal: Kurseong (Fraser, 1929b).

***Orolestes durga* Lahiri, 1987**

1987. *Orolestes durga* Lahiri, *Rec. zool. Surv. India, Occ. Pap. No.* **99** : 61-62.

*Distribution*: Arunachal Pradesh: Sunpura (Lahiri, 1987); Meghalaya: Rongrengiri (Lahiri, 1987).

Family MEGAPODAGRIONIDAE

***Burmargiolestes laidlawi* Lieftinck, 1960**

1862. *Argiolestes melanothorax* Selys, *Bull. Acad. Belg.*, (2) **14** : 38.

1917. *Argiolestes melanothorax*, Laidlaw (nec Selys, 1891), *Rec. Indian Mus.*, **13** : 323-325.

1960. *Burmargiolestes laidlawi*, Lieftinck, *Mem. Soc. ent. Ital.*, **38** : 236.

*Distribution*: Sikkim (Fraser, 1931c & 1933c); West Bengal: Darjiling, Gopaldhara (Laidlaw, 1917b; Lieftinck, 1960).

Family SYNLESTIDAE

***Megalestes lieftincki* Lahiri, 1979**

1979. *Megalestes lieftincki* Lahiri, *Oriental Insects*, **13** (1-2) : 122-125.

*Distribution*: Arunachal Pradesh: Tahlia (Lahiri, 1979), Kameng: Salari (Asahina, 1985b).

***Megalestes raychoudhuri* Lahiri, 1987**

1987. *Megalestes raychoudhuri* Lahiri, *Rec. zool. Surv. India, Occ. Pap. No. 99* : 54-56.

*Distribution*: Meghalaya: Khasi Hills: Mawphlong, Shillong (Lahiri, 1987).

Superfamily CALOPTERYGOIDEA

Family CALOPTERYGIDAE

***Echo margarita tripartita* Selys, 1879**

1879. *Echo margarita tripartita* Selys, *Bull. Acad. Belg. (2)* 47: 356.

*Distribution*: Meghalaya: Khasi Hills (Laidlaw, 1917a), Shillong (Fraser, 1929b), Central and Southern parts of Khasi Hills: Mawpat, Mawrapt, Mawsynram, Shillong, Umsning (Lahiri, 1987), Shillong, Nongthumai, Pynursla (Srivastava and Sinha, 1995).

***Vestalis apicalis* Selys, 1873**

1873. *Vestalis apicalis* Selys, *Bull. Acad. Belg. (2)* 36: 612.

1934. *Vestalis apicalis apicalis*, Fraser, *Fauna Brit. India, Odonata*, 2 : 128-130.

2011. *Vestalis apicalis*, Hämäläinen, *Notulae Odonatologicae*, 7 (8) : 71-73.

*Distribution*: Assam (Fraser, 1934b); Goa: near Molem Sanctuary (Kulkarni and Talmale, 2008), Brahmakarmali, Dudhsagar, Cotigao, Derode (Rangnekar *et al.*, 2010); Karnataka: Coorg, South Kanara (Fraser, 1931a), Kudremukh National Park (Emiliyamma and Radhakrishnan, 2007); Kerala: Cochin state (Laidlaw, 1917a), Malabar, Travancore (Fraser, 1931a), New Amarambalam Reserve Forests (Rao & Lahiri, 1983), Ernakulam, Kannur, Kasaragod, Kollam, Kottayam, Kozhikode, Palakkad (Parambikulam WLS), Thiruvananthapuram, Wayanad (Emiliyamma and Radhakrishnan, 2000; Emiliyamma *et al.*, 2007); Maharashtra: Mumbai: Sanjay Gandhi National Park (Kulkarni *et al.*, 2006b); Orissa: Kotagarh (Mitra, 2002b); Pondicherry: Mahe (Emiliyamma and Radhakrishnan, 2006a); Southern India: Western and Eastern Ghats (Fraser 1934b); Tamil Nadu: Anaimalai and Mudis Hills, Bolovumpattis, Nilgiri Hills (Fraser, 1931a), Nilgiris: Kallar (Bhasin, 1953).

***Vestalis submontana* Fraser, 1934**

1929. *Vestalis gracilis amaena* Fraser, *J. Bombay nat. Hist. Soc.*, 33 : 583.

1929. *Vestalis apicalis amaena* Fraser, *J. Bombay nat. Hist. Soc.*, 33 : 584.

1934. *Vestalis gracilis montana*, Fraser, *Fauna Brit. India, Odonata*, 2 : 128.

1934. *Vestalis apicalis submontana*, Fraser, *Fauna Brit. India, Odonata*, 2 : 130.

2011. *Vestalis submontana*, Hämäläinen, *Notulae Odonatologicae*, 7 (8) : 71-73.

Andhra Pradesh: Waltair ((Fraser, 1934b; Hämäläinen, 2011); Karnataka: Coorg (Fraser, 1934b), Mercara, Hallery, Makut Ghat, Sambaji Ghat (Hämäläinen, 2011), Kudremukh National Park (Emiliyamma and Radhakrishnan, 2007); Kerala: Wayanad (Fraser, 1934b), Malabar: South Malabar, Vaitri Road 32-33 mile; Travancore: Muthikolam, Tenmalai, Munar Ghat, Pirmed, Thekkadi, Periyar Dam, Poonmudi Range (Hämäläinen, 2011), New Amarambalam Reserve Forests (Rao and Lahiri, 1983), Kasaragod, Kottayam, Kozhikode, Palakkad (Parambikulam WLS), Thiruvananthapuram, Wayanad (Emiliyamma and

Radhakrishnan, 2000; Emiliyamma *et al.*, 2007); Tamil Nadu: Nilgiris: Gudalur, Devala (Fraser, 1934b; Kimmins, 1966), Chuangude; Coimbatore: Boluvampatti Valley; Anaimalai Hills: Cinchona; Mudis Hills: Tonymudi; (Hämäläinen, 2011).

Family CHLOROCYPHIDAE

*Calocypha laidlawi* (Fraser, 1924)

1924. *Rhinocypha laidlawi* Fraser, *Rec. Indian Mus.*, **26** : 482-483.

1928. *Calocypha laidlawi* Fraser, *J. Bombay nat. Hist. Soc.*, **32** : 457-458.

*Distribution*: Karnataka: Coorg- South Kanara enclave (Fraser, 1924b); Kerala: South Malabar: Tamaracherri (Fraser, 1931a), Kollam: Shendurani; Ernakulam: Thatekkad (Subramanian, pers.obs.).

*Libellago andamanensis* (Fraser, 1924)

1924. *Micromerus andamanensis* Fraser, *Rec. Indian Mus.*, **26** : 410.

1934. *Libellago andamanensis*, Fraser, *Fauna Brit. India, Odonata*, **2** : 66.

1983. *Libellago lineata andamanensis*, Chhotani *et al.*, *Rec. zool. Surv. India*, **80** : 471.

2002. *Libellago andamanensis*, Hämäläinen, *Odonatologica*, **31**(4) : 351-353.

*Distribution*: Andaman & Nicobar Islands: Andaman: Mt. Harriet (Fraser, 1924a), South Andaman (Chhotani *et al.*, 1983; Hämäläinen, 2002), Little Andaman and North Andaman (Ram *et al.*, 2000; Hämäläinen, 2002).

*Libellago blanda* (Selys, 1853)

1853. *Micromerus blandus* Selys, *Syn. Cal.*, p. 64.

1853. *Libellago blandus*, Walker, *List. Neur. Ins. Brit. Mus.*, **4** : 652.

1928. *Micromerus lineatus blandus*, Fraser, *J. Bombay nat. Hist. Soc.*, **33** : 687.

1934. *Libellago lineata blanda*, Fraser, *Fauna Brit. India, Odonata*, **2** : 65.

2002. *Libellago blanda*, Hämäläinen, *Odonatologica*, **31**(4) : 347-349.

*Distribution*: Andaman & Nicobar Islands: Nicobar (Fraser, 1934b; Hämäläinen, 2002).

*Libellago balus* Hämäläinen, 2002

2002. *Libellago balus* Hämäläinen, *Odonatologica*, **31**(4) : 349-351.

*Distribution*: Andaman & Nicobar Islands : Great Nicobar (Hämäläinen, 2002).

*Rhinocypha bisignata* Selys, 1853

1853. *Rhinocypha bisignata* Selys, *Syn. Cal.*, p. 62.

*Distribution*: Andhra Pradesh: Cuddapa (Lahiri and Sinha, 1991), Anantpur (Nallamali Forests) (Prasad, 2007b); Goa: Lolagam Maxem, North Goa (Kulkarni and Talmale, 2008), Savri waterfalls, Dudhsagar, Cotigao, Bondla (Rangnekar *et al.*, 2010); Karnataka: Coorg, South Kanara (Fraser, 1924b, 1928 & 1931a), Kudremukh National Park (Emiliyamma and Radhakrishnan, 2007); Kerala: Parambikulam (Laidlaw, 1917a), Cochin, Malabar,

Travancore (Fraser, 1928 & 1931a), New Amarambalam Reserve Forests (Rao and Lahiri, 1983), Kottayam (Lahiri and Sinha, 1991), Ernakulam, Kannur, Kollam, Kottayam, Kozhikode, Palakkad (Parambikulam WLS), Idukki (Periyar Tiger Reserve), Thiruvananthapuram, Wayanad (Emiliyamma and Radhakrishnan, 2000; Emiliyamma *et al.*, 2007); Maharashtra: Bombay: Khandala, Igatpuri (Fraser, 1928 & 1934b), Pune (Lahiri and Sinha, 1991; Babu and Nandy, 2010a); Madhya Pradesh: Sagar (Srivastava and Suri Babu, 1997); Orissa: East Coast: Agency Tract and Jeypore (Fraser, 1928), Bolangir (Mitra, 1994 & 2002b); Tamil Nadu: Anaimalai and Mudis Hills, Bolovumpattis, Nilgiri Hills, Palni Hills, Shevaray Hills (Fraser, 1924b, 1928, 1931a & 1934b), Foot of Anaimalai Hills (Lahiri and Sinha, 1991).

*Rhinocypha hilaryae miaoa* Lahiri and Sinha, 1991

1991. *Rhinocypha hilaryae miaoa* Lahiri and Sinha, *Rec. zool. Surv. India*, **89** : 260-261.

*Distribution*: **Arunachal Pradesh**: Tirap: Horn bill (Lahiri and Sinha, 1991).

*Rhinocypha perforata beatifica* Fraser, 1927

1927. *Rhinocypha perforata beatifica* Fraser, *Rec. Indian Mus.*, **29** : 86-87.

*Distribution*: Meghalaya: Garo and Khasi Hills: Songsok, Rongrengiri, Shella, Umran (Lahiri, 1987); Umran (Terzani and Carletti, 1998); Nagaland: Naga Hills: Nungba (Fraser, 1927), Mon (Mitra, 2002b).

*Rhinocypha vitrinella* Fraser, 1935

1935. *Rhinocypha vitrinella* Fraser, *Rec. Indian Mus.*, **37** : 332-333.

*Distribution*: Assam: Cachar (Fraser, 1935); Meghalaya: Khasi Hills: Nongpoh (Lahiri, 1987).

Family: EUPHAEIDAE

*Anisopleura lieftincki* Prasad and Ghosh, 1984

1984. *Anisopleura lieftincki* Prasad and Ghosh, *Bull. zool. Surv. India*, **6** (1-3) : 40-42.

*Distribution*: Meghalaya: Khasi Hills: Along the road from Mawsamai to Shella (Prasad and Ghosh, 1984).

*Anisopleura subplatystyla* Fraser, 1927

1927. *Anisopleura subplatystyla* Fraser, *Rec. Indian Mus.*, **29** : 81-82.

*Distribution*: Meghalaya: Khasi Hills: Shillong (Fraser, 1927), Central Khasi Hills: Barapani, Mawpat, Mawphlong, Shillong (Lahiri, 1987); Sikkim: Tumin (Mitra, 2002b).

*Anisopleura vallei* St. Quentin, 1937

1937. *Anisopleura vallei* St. Quentin, *Konowia*, **16** : 86.

*Distribution*: Meghalaya: Khasi Hills: Cherrapunji (St. Quentin, 1937).

*Bayadera chittaranjani* Lahiri, 2003

2003. *Bayadera chittaranjani* Lahiri, *Rec. zool. Surv. India*, **101** (3-4) : 39-41.

*Distribution:* Manipur: Chandil (Lahiri, 2003).

***Bayadera kali* Cowley, 1936**

1936. *Bayadera kali* Cowley, *Ann. Mag. Nat. Hist.*, **18** (10) : 477.

*Distribution:* Meghalaya.

*Remarks:* Lahiri (1987) listed this species from Meghalaya but exact locality unknown.

***Dysphaea ethela* Fraser, 1924**

1924. *Dysphaea ethela* Fraser, *Rec. Indian Mus.*, **26** : 480-482.

*Distribution:* Goa: Cadval, Derode (Rangnekar *et al.*, 2010); Karnataka: Coorg: Napoklu, Madapur, Murnad, Sidapur, Dubary, Fraserpet (Fraser, 1924b), South Kanara (Fraser, 1931a); Kerala: Malabar (Fraser, 1931a); Orissa: Eastern Ghats: Agency Tracts: Jeypore (Fraser, 1928); Tamil Nadu (Emiliyamma, 2009) but exact locality unknown.

***Euphaea cardinalis* (Fraser, 1924)**

1924. *Pseudophaea cardinalis* Fraser, *Rec. Indian Mus.*, **26** : 512-513.

1929. *Indophaea cardinalis*, Fraser, *J. Bombay nat. Hist. Soc.*, **33** : 295-296.

2000. *Euphaea cardinalis*, Tsuda, *A distributional list of World Odonata*, p. 81.

*Distribution:* Assam: Sangsok (Mitra, 2002b)\*; Karnataka: Kudremukh National Park (Emiliyamma and Radhakrishnan, 2007); Kerala: Travancore (Fraser, 1931a), Ernakulam, Kannur, Idukki (Periyar Tiger Reserve) (Emiliyamma *et al.*, 2007); Tamil Nadu: Anaimalai and Mudis Hills; Palni Hills: Shambaganur, Tiger Shola (Fraser, 1924b & 1931a).

\**Remarks:* Mitra (2002b) reported the species from Assam. However, fresh specimens are required to confirm the distribution.

***Euphaea dispar* Rambur, 1842**

1842. *Euphaea dispar* Rambur, *Hist. nat. Ins. Neuropt.*, p. 230.

1890. *Pseudophaea dispar*, Kirby, *Syn. Cat. Neur. Odon.*, p. 109.

1929. *Indophaea dispar*, Fraser, *J. Bombay nat. Hist. Soc.*, **33** : 294-295.

2000. *Euphaea dispar*, Tsuda, *A distributional list of World Odonata*, p. 81.

*Distribution:* Karnataka: Coorg, South Kanara (Fraser, 1924b); Kerala: Malabar: Wayanad (Fraser, 1929a), Kannur, Kozhikode, Wayanad (Emiliyamma *et al.*, 2007); Tamil Nadu: Nilgiri Hills: Coonoor and Gudalur (Fraser, 1924b).

***Euphaea fraseri* (Laidlaw, 1920)**

1920. *Pseudophaea fraseri* Laidlaw, *Rec. Indian Mus.*, **21** : 23-27.

1929. *Indophaea fraseri*, Fraser, *J. Bombay nat. Hist. Soc.*, **33** : 296-298.

2000. *Euphaea fraseri*, Tsuda, *A distributional list of World Odonata*, p. 81.

*Distribution:* Goa: Savri water falls, Dudhsagar, Paytale & Sada, Cotigao, Derode (Rangnekar *et al.*, 2010); Karnataka: North Kanara: Near Castle Rock: Talewadi (Laidlaw,

1920), Coorg, North and South Kanara (Fraser, 1929a, 1931a & 1934b), Kudremukh National Park (Emiliyamma and Radhakrishnan, 2007); Kerala: Malabar- Wayanad (Fraser, 1929a; Bhasin, 1953), Kannur, Kozhikode, Wayanad (Emiliyamma *et al.*, 2007); Tamil Nadu: Anaimalai and Mudis Hills, Nilgiri Hills (Fraser, 1929a & 1931a).

Suborder ANISOPTERA  
Superfamily AESHNOIDEA  
Family GOMPHIDAE

***Acrogomphus fraseri* Laidlaw, 1925**

1925. *Acrogomphus fraseri* Laidlaw, *Proc. Zool. Soc. Lond.*, pp. 441-443.

*Distribution:* Karnataka: Coorg; Kerala: Travancore; Tamil Nadu: Anaimalai and Mudis Hills (Fraser, 1931a).

***Anormogomphus heteropterus* Selys, 1854**

1854. *Anormogomphus heteropterus* Selys, *Bull. Acad. Belg.*, **21** : 61.

*Distribution:* Arunachal Pradesh: Tirap: Jairampur (Ram and Prasad, 1999); Bihar: Baghwonie (Fraser, 1934b); Himachal Pradesh: Kangra, Palampur (Prasad, 1976); Mandi, Palampur; Sirmaur: Nauradhar (Babu and Nandy, Comm.) Maharashtra: Aurangabad (Babu *et al.*, 2008); Meghalaya: Cherrapunji, Khasi Hills, West Garo Hills (Srivastava and Sinha, 1995); Sikkim: Tirap (Mitra, 2006); Uttarakhand: Doon Valley (Singh and Prasad, 1976), Dehra Dun, Nainital (Kumar and Prasad, 1981).

***Asiagomphus nilgiricus* (Laidlaw, 1922)**

1922. *Gomphus nilgiricus* Laidlaw, *Rec. Indian Mus.*, **24** : 397-398.

2000. *Asiagomphus nilgiricus*, Tsuda, *A Distributional list of World Odonata*, p. 91.

*Distribution:* Karnataka: Coorg (Fraser, 1931a); Tamil Nadu: Nilgiris (Laidlaw, 1922), Nilgiri Hills: Coonoor; Anaimalai and Mudis Hills, Palni Hills (Fraser, 1922b, 1931a & 1934b).

***Asiagomphus o'doneli* (Fraser, 1922)**

1922. *Gomphus o'doneli* Fraser, *Rec. Indian Mus.*, **24** : 420-421.

2000. *Asiagomphus o'doneli*, Tsuda, *A Distributional list of World Odonata*, p. 91.

*Distribution:* West Bengal: Duars: Hasimara Tea Estate (Fraser, 1922b, 1925a & 1934b).

***Burmagomphus cauvericus* Fraser, 1926**

1926. *Burmagomphus cauvericus* Fraser, *J. Bombay nat. Hist. Soc.*, **31** : 413.

*Distribution:* Karnataka: Coorg: Bhagmandala, along the banks and tributaries of the River Cauvery (Fraser, 1926b & 1931a).

***Burmagomphus laidlawi* Fraser, 1924**

1924. *Burmagomphus laidlawi* Fraser, *Rec. Indian Mus.*, **26** : 475-476.

*Distribution:* Karnataka: Coorg, South Kanara (Fraser, 1931a); Tamil Nadu: Nilgiri Hills: Gudalur, Kallar (Fraser, 1924b, 1934b).

***Burmagomphus sivalikensis* Laidlaw, 1922**

1922. *Burmagomphus sivalikensis* Laidlaw, *Rec. Indian Mus.*, **24** : 401-402.

*Distribution:* Himachal Pradesh: Sirmaur (Kumar and Prasad, 1981): Paonta (Babu and Nandy, Comm.); Uttarakhand: Dehra Dun (Laidlaw, 1922; Fraser, 1926b; Kumar and Prasad, 1981); West Bengal: Duars: Hasimara (Fraser, 1924b & 1926b).

*Remarks:* Tsuda (2000) mentioned distribution of this species in Pakistan also. As no literature is available on that occurrence, the species is treated here as endemic to India.

***Cyclogomphus heterostylus* Selys, 1854**

1854. *Cyclogomphus heterostyla* Selys, *Bull. Acad. Belg.*, **21**(2): 62.

1857. *Cyclogomphus heterostylus*, Selys, *Mon. Gomph.*, p. 106.

*Distribution:* Kerala: Thiruvananthapuram (Emiliyamma and Radhakrishnan, 2006b); Maharashtra: Pune: Katraj Lake (Fraser, 1919a, 1924b & 1926a; Laidlaw, 1922), Deccan (Fraser, 1931a); Tamil Nadu: Madras: St. Thomas Mount, Coomb River (Laidlaw, 1922; Fraser, 1926a & 1934b); West Bengal: Darjiling (Laidlaw, 1922).

*Remarks:* Type locality is from North India, exact locality unknown (Fraser, 1926a).

***Cyclogomphus vesiculosus* Selys, 1873**

1873. *Cyclogomphus vesiculosus* Selys, *Bull. Acad. Belg.*, **36**(2) : 300.

*Distribution:* India, locality unknown (Fraser, 1926a).

***Cyclogomphus wilkinsi* Fraser, 1926**

1926. *Cyclogomphus wilkinsi* Fraser, *J. Bombay nat. Hist. Soc.*, **31** : 161-162.

*Distribution:* Karnataka: Mysore: Hunse: banks of a small stream (Fraser, 1926a), Coorg (Fraser, 1931a); Maharashtra: Pune: Moshi (Prasad, 1996b).

***Cyclogomphus ypsilon* Selys, 1854**

1854. *Cyclogomphus ypsilon* Selys, *Bull. Acad. Belg.*, **21**(2) : 62.

*Distribution:* Madhya Pradesh: Guna (Fraser, 1926a); Maharashtra: Pune: Katraj Lake (Laidlaw, 1922; Fraser, 1926a).

***Davidioides martini* Fraser, 1924**

1924. *Davidioides martini* Fraser, *Rec. Indian Mus.*, **26** : 472-473.

*Distribution:* Kerala: North Malabar: Kunnoth (Fraser, 1924b), Silent Valley National Park (Subramanian, pers. obs.).

***Davidius aberrans schmidi* Asahina, 1994**

1994. *Davidius aberrans schmidi* Asahina, *Tombo*, **37** (1-4) : 4-5.

*Distribution:* Arunachal Pradesh: Kameng (Asahina, 1994).

***Davidius aberrans senchalensis* Fraser, 1926**

1926. *Davidius aberrans senchalensis* Fraser, *J. Bombay nat. Hist. Soc.*, **31** : 170.

*Distribution:* West Bengal: Darjiling: Senchal (Fraser, 1926a).

***Davidius kumaonensis* Fraser, 1926**

1926. *Davidius kumaonensis* Fraser, *J. Bombay nat. Hist. Soc.*, **31** : 170-171.

*Distribution:* Uttarakhand: Kumaon Hills (Fraser, 1926a & 1934b), Pauri Garwal: Naggoochotti (Prasad and Sinha, 2010).

***Davidius malloryi* Fraser, 1926**

1926. *Davidius malloryi* Fraser, *J. Bombay nat. Hist. Soc.*, **31** : 167-169.

*Distribution:* Meghalaya: Khasi Hills: Laitlynghat (Fraser, 1926a & 1934b).

***Dubitogomphus bidentatus* (Fraser, 1930)**

1930. *Leptogomphus bidentatus* Fraser, *J. Bombay nat. Hist. Soc.*, **34** : 752-753.

1940. *Dubitogomphus bidentatus*, Fraser, *Trans. Royal Ent. Soc. Lond.*, **90** : 549.

*Distribution:* Meghalaya: Shillong (Fraser, 1930b & 1934b).

***Gomphidia fletcheri* Fraser, 1923**

1923. *Gomphidia fletcheri* Fraser, *J. Bombay nat. Hist. Soc.*, **29** : 669-670.

*Distribution:* **Karnataka:** Coorg: Mercara: Hallery (Fraser, 1923b).

***Gomphidia ganeshi* Chhotani, Lahiri and Mitra, 1983**

1983. *Gomphidia ganeshi* Chhotani *et al.*, *Rec. zool. Surv. India*, **80** : 480.

*Distribution:* Andaman & Nicobar Islands: South Andaman: Rajatgarh (Chhotani *et al.*, 1983).

***Gomphidia kodaguensis* Fraser, 1923**

1923. *Gomphidia kodaguensis* Fraser, *J. Bombay nat. Hist. Soc.*, **29** : 671-672.

*Distribution:* Karnataka: Coorg: Cauvery River: Dubarry, Bettagiri (Fraser, 1923b; Bhasin, 1953); Kerala: Malabar (Wayanad); Tamil Nadu: Anaimalai and Mudis Hills, Bolovampatti valley (Fraser, 1931a & 1934b).

***Gomphidia leonora* Mitra, 1994**

1994. *Gomphidia leonora* Mitra, *Rec. zool. Surv. India, Occ. Pap. No.*, **166** : 34.

*Distribution:* West Bengal: Bankura: Susunia Hill (Mitra, 1994 & 2002b).

***Gomphidia platyceps* Fraser, 1953**

1953. *Gomphidia platyceps* Fraser, *Proc. Roy. Ent. Soc. Lond.*, **22** : 189-190.

*Distribution:* Karnataka: Coorg: Bhagmandala (Fraser, 1953).

***Gomphidia t-nigrum* Selys, 1854**

1854. *Gomphidia t-nigrum* Selys, *Bull. Acad. Belg.* (2) **21**: 86.

*Distribution*: Andaman & Nicobar Islands: Little Andaman and North Andaman (Ram *et al.*, 2000); Assam: Lakhimpur, U. Dihing (Bhasin, 1953); Himachal Pradesh: Una (Babu and Mitra, 2011); Maharashtra: Pune: Katraj Lake (Fraser, 1923b; Laidlaw, 1922), Ahmednagar (Babu and Nandy, 2010a).

***Heliogomphus promelas* (Selys, 1873)**

1873. *Gomphus promelas* Selys, *Bull. Acad. Belg.* (2) **36**: 498.

1890. *Aeshna promelas*, Kirby, *Syn. Cat. Neur. Odon.*, p. 68.

1907. *Gomphus? promelas*, Williamson, *Proc. U.S. nat. Mus.*, **33** : 305.

1922. *Heliogomphus pruinans*, Fraser, *Rec. Indian Mus.*, **24** : 416-417.

1925. *Heliogomphus promelas*, Fraser, *J. Bombay nat. Hist. Soc.*, **30** : 848-849.

*Distribution*: Goa: Dudhsagar, Cotigao, Derode (Rangnekar *et al.*, 2010); Karnataka: Coorg: Mercarra; Mangalore Ghat: Sampaji River; Kerala: Malabar, Travancore; Tamil Nadu: Anaimalai and Mudis Hills, Nilgiri Hills: Burliyar, Mettupalayam and Kotagiri Ghats (Fraser, 1922b, 1925b, 1931a & 1934b).

***Heliogomphus kalarensis* Fraser, 1934**

1934. *Heliogomphus kalarensis* Fraser, *Fauna Brit. India, Odonata*, **2**: 329-330

*Distribution*: Tamil Nadu: Nilgiris: Kallar (Fraser, 1934b), Kotagiri Ghat (Kimmins, 1966).

***Heliogomphus spirillus* (Fraser, 1922)**

1922. *Leptogomphus spirillus* Fraser, *Mem. Dept. Agric. India (Ent.)*, **7** (7) : 71-72.

1923. *Heliogomphus spirillus*, Fraser, *J. Bombay nat. Hist. Soc.*, **29** : 63.

*Distribution*: Meghalaya: Garo and Khasi Hills (Fraser, 1934b).

***Ictinogomphus atrox* (Selys, 1854)**

1854. *Ictinus atrox* Selys, *Bull. Acad. Belg.* (2) **21**: 92.

2000. *Ictinogomphus atrox*, Tsuda, *A Distributional list of World Odonata*, p. 99.

*Distribution*: Bihar (Fraser, 1923b & 1934b).

***Ictinogomphus distinctus* Ram, 1985**

1985. *Ictinogomphus distinctus* Ram, *Proc. 1<sup>st</sup> Indian Symp. Odonatol.*, 175-184.

*Distribution*: West Bengal: Howrah : Santragachi, (Type Locality) (Ram, 1985), Maharashtra : Nagpur, (Ashish Tiple, Photo record).

***Macrogomphus annulatus* (Selys, 1854)**

1854. *Heterogomphus annulatus* Selys, *Bull. Acad. Belg.* **21** (2): 28.

1857. *Macrogomphus annulatus*, Selys, *Mon. Gomph.*, p. 92, 405.

*Distribution:* Karnataka: Coorg (Fraser, 1924b); Maharashtra: Deccan (Fraser, 1931a), Pune (Laidlaw, 1922; Fraser, 1924b & 1934b; Prasad, 1996b; Babu and Nandy, 2010a).

***Macrogomphus wynaadicus* Fraser, 1924**

1924. *Macrogomphus wynaadicus* Fraser, *Rec. Indian Mus.*, **26** : 471-472.

*Distribution:* Karnataka: Coorg, North Kanara; Kerala: Malabar (Tamaracherri) (Fraser, 1931a & 1934b); Tamil Nadu: Nilgiri Hills: Masinagudi (Fraser, 1924b).

***Megalogomphus bicornutus* (Fraser, 1922)**

1922. *Gomphus bicornutus* Fraser, *Mem. Dept. Agric. India (Ent.)*, **7** (7) : 72.

1923. *Heterogomphus bicornutus*, Fraser, *J. Bombay nat. Hist. Soc.*, **29** : 679.

1930. *Megalogomphus bicornutus*, Laidlaw, *Trans. Ent. Soc. Lond.*, **78** : 197.

*Distribution:* Meghalaya: Shillong, Khasi Hills (Fraser, 1923b & 1934b).

***Megalogomphus flavicolor* (Fraser, 1923)**

1923. *Heterogomphus flavicolor* Fraser, *J. Bombay nat. Hist. Soc.*, **29** : 678.

1930. *Megalogomphus flavicolor*, Laidlaw, *Trans. Ent. Soc. Lond.*, **78** : 197.

*Distribution:* Bihar (Fraser, 1923b); West Bengal: Duars (Fraser, 1934b).

***Megalogomphus hanningtoni* (Fraser, 1923)**

1923. *Heterogomphus hanningtoni* Fraser, *J. Bombay nat. Hist. Soc.*, **29** : 674-676.

1924. *Megalogomphus hanningtoni*, Fraser, *Rec. Indian Mus.*, **26** : 478-479.

*Distribution:* Karnataka: Coorg; Bhagamandala, Mercara: Hallery: Hatty river (Fraser, 1923b); Kerala: Malabar (Fraser, 1931a).

***Megalogomphus superbus* Fraser, 1931**

1931. *Megalogomphus superbus* Fraser, *Rec. Indian Mus.*, **33** : 460-463.

*Distribution:* Kerala: Malabar: Walaiyar Forest (Fraser, 1934b); Tamil Nadu: Coimbatore: Bolovumpatti Hills, and Nilgiri Hills: Kallar (Fraser, 1931a & 1934b).

***Merogomphus longistigma longistigma* (Fraser, 1922)**

1922. *Indogomphus longistigma* Fraser, *Rec. Indian Mus.*, **24** : 422-424.

1930. *Merogomphus longistigma*, Laidlaw, *Trans. Ent. Soc. Lond.*, **78** : 185.

1934. *Merogomphus longistigma longistigma*, Fraser, *Fauna Brit. India, Odonata*, **2** : 311-313.

*Distribution:* Karnataka: Coorg; Kerala: Malabar, Wayanad (Vayitri), Travancore; Tamil Nadu: Nilgiri Hills: Gudalur (Fraser, 1922b, 1931a & 1934b).

***Merogomphus longistigma tamaracherriensis* Fraser, 1931**

1931. *Merogomphus longistigma tamaracherriensis* Fraser, *Rec. Indian Mus.*, **33** : 460.

*Distribution:* Kerala: South Malabar: Tamaracherri (Fraser, 1931a).

***Microgomphus souteri* Fraser, 1924**

1924. *Microgomphus torquatus souteri* Fraser, *Rec. Indian Mus.*, **26** : 474.

1925. *Microgomphus souteri*, Fraser, *J. Bombay nat. Hist. Soc.*, **30** : 853-854.

*Distribution*: Karnataka: Coorg: Bhagmandala road, Mercara: Hallery, Kibribetta stream, Somwarpet; Mangalore Ghat: Sampaji river (Fraser, 1924b & 1925b); Kerala: Malabar; Tamil Nadu: Bolovumpatti (Fraser, 1931a & 1934b).

***Microgomphus torquatus* (Selys, 1854)**

1854. *Cyclogomphus torquatus* Selys, *Bull. Acad. Belg.* **21** (2): 63.

1922. *Microgomphus torquatus*, Laidlaw, *Rec. Indian Mus.*, **24** : 380-383.

1924. *Microgomphus torquatus torquatus*, Fraser, *Rec. Indian Mus.*, **26** : 474.

1934. *Microgomphus torquatus*, Fraser, *Fauna Brit. India, Odonata*, **2** : 353-355.

*Distribution*: Maharashtra: Pune (Laidlaw, 1922), Satara, Pune: Byroabah nullah and Mullah River (Fraser, 1924b & 1934b).

***Microgomphus verticalis* (Selys, 1873)**

1873. *Cyclogomphus verticalis* Selys, *Bull. Acad. Belg.* (2) **36**: 501.

1919. *Cyclogomphus verticalis*, Fraser, *Rec. Indian Mus.*, **16** : 462.

1925. *Microgomphus verticalis*, Fraser, *J. Bombay nat. Hist. Soc.*, **30** : 857.

1930. *Cyclogomphus? verticalis*, Laidlaw, *Trans. Ent. Soc. Lond.*, **78** : 187.

1934. *Microgomphus verticalis*, Fraser, *Fauna Brit. India, Odonata*, **2** : 357.

*Distribution*: Maharashtra: Pune (Fraser, 1919a).

*Remarks*: Type from India, locality unknown (Fraser, 1925b).

***Nihonogomphus indicus* Lahiri, 1987**

1987. *Nihonogomphus indicus* Lahiri, *Rec. zool. Surv. India, Occa. Pap. No.* **99** : 128-130.

*Distribution*: Meghalaya: Southern Garo Hills: Rongrengiri (Lahiri, 1987).

***Onychogomphus acinaces* Laidlaw, 1922**

1922. *Onychogomphus acinaces* Laidlaw, *Rec. Indian Mus.*, **24** : 407-409.

1924. *Lamellogomphus acinaces*, Fraser, *J. Bombay nat. Hist. Soc.*, **29** : 988-990.

1934. *Lamellogomphus acinaces*, Fraser, *Fauna Brit. India, Odonata*, **2** : 280-282.

1985. *Onychogomphus acinaces*, Davies and Tobin, *The Dragonflies of the World: A Systematic list of the extant species of Odonata*, **2**: 42.

*Distribution*: Karnataka: North Kanara: Castle Rock (Laidlaw, 1922), Coorg, North and South Kanara; Kerala: Malabar (Fraser, 1924b, c, 1931a & 1934b).

***Onychogomphus cacharicus* (Fraser, 1924)**

1924. *Lamellogomphus cacharicus* Fraser, *Mem. Dept. Agric. India (Ent.)*, **8** (8) : 81-83.

1930. *Lamellogomphus cachariensis*, Laidlaw, *Trans. Ent. Soc. Lond.*, **78** : 194.

1934. *Lamellogomphus cacharicus*, Fraser, *Fauna Brit. India, Odonata*, **2** : 275-276.

1985. *Onychogomphus cacharicus*, Davies and Tobin, *The Dragonflies of the World: A Systematic list of the extant species of Odonata*, **2**: 42.

*Distribution:* Assam: Cachar: Dilkhoosh (Fraser, 1936; Kimmins, 1966); Arunachal Pradesh: Siang (Prasad, 1997b).

***Onychogomphus grammicus* (Rambur, 1842)**

1842. *Gomphus grammicus* Rambur, *Hist. nat. Ins. Neuropt.*, p. 164.

1854. *Onychogomphus grammicus*, Selys, *Bull. Acad. Belg.* **21** (2): 35.

1890. *Lindenia grammicus*, Kirby, *Syn. Cat. Neur. Odon.*, p. 59.

1924. *Mesogomphus grammicus*, Fraser, *J. Bombay nat. Hist. Soc.*, **29** : 994-995.

1934. *Onychogomphus grammicus*, Fraser, *Fauna Brit. India, Odonata*, **2** : 256-257.

*Distribution:* Bihar: Pusa (Fraser, 1924c); Rajasthan: Chittorgarh (Bose and Mitra, 1976); Uttar Pradesh: Agra (Laidlaw, 1922); Central India (Fraser, 1934b); Maharashtra: Ahmednagar, Pune (Babu *et al.*, 2008; Babu and Nandy, 2010a).

*Remarks:* Kumar (1997) listed from Delhi but material not examined.

***Onychogomphus malabarensis* (Fraser, 1924)**

1924. *Lamellogomphus malabarensis* Fraser, *J. Bombay nat. Hist. Soc.*, **29** : 990-991.

1924. *Lamellogomphus malabaricus*, Fraser, *Rec. Indian Mus.*, **26** : 477.

1934. *Lamellogomphus malabarensis*, Fraser, *Fauna Brit. India, Odonata*, **2** : 279-280.

1985. *Onychogomphus malabarensis*, Davies and Tobin, *The Dragonflies of the World: A Systematic list of the extant species of Odonata*, **2**: 44.

*Distribution:* Kerala: Malabar: Palghat (Fraser, 1924d & 1931a).

***Onychogomphus meghalayanus* Lahiri, 1987**

1987. *Onychogomphus meghalayanus* Lahiri, *Rec. zool. Surv. India, Occa. Pap. No.* **99** : 135-136.

*Distribution:* Meghalaya: Southern Garo Hills: Rongrengiri (Lahiri, 1987).

***Onychogomphus nilgiriensis annaimallaicus* (Fraser, 1934)**

1934. *Lamellogomphus nilgiriensis annaimallaicus* Fraser, *Fauna Brit. India, Odonata*, **2** : 279.

2000. *Onychogomphus nilgiriensis annaimallaicus*, Tsuda, *A Distributional list of World Odonata*, p. 105.

*Distribution:* Kerala: Munnar (Kimmins, 1966); Tamil Nadu: Coimbatore: Mudis Hills (Fraser, 1934b).

***Onychogomphus nilgiriensis nilgiriensis* (Fraser, 1922)**

1922. *Onychogomphus biforceps nilgiriensis* Fraser, *Rec. Indian Mus.*, **24** : 425-426.

1923. *Lamellogomphus biforceps nilgiriensis*, Fraser, *J. Bombay nat. Hist. Soc.*, **29** : 65, 332.

1924. *Lamellogomphus nilgiriensis*, Fraser, *J. Bombay nat. Hist. Soc.*, **29** : 986-988.

1934. *Lamellogomphus nilgiriensis*, Fraser, *Fauna Brit. India, Odonata*, **2** : 276-279.

1985. *Onychogomphus nilgiriensis*, Davies and Tobin, *The Dragonflies of the World: A Systematic list of the extant species of Odonata*, **2**: 44.

2000. *Onychogomphus nilgiriensis nilgiriensis*, Tsuda, *A Distributional list of World Odonata*, p. 105.

*Distribution:* Karnataka: Coorg, South Kanara; Kerala: Malabar, Travancore (Fraser, 1931a & 1934b); Tamil Nadu: Nilgiri Hills: Gudalur (Fraser, 1922b), Anaimalai and Mudis Hills, Nilgiri Hills, Palni Hills (Fraser, 1931a & 1934b).

***Onychogomphus striatus* Fraser, 1924**

1924. *Onychogomphus striatus* Fraser, *J. Bombay nat. Hist. Soc.*, **29** : 1001.

*Distribution:* Tamil Nadu: Nilgiris: Kallar (Fraser, 1924d).

***Paragomphus echinoccipitalis* (Fraser, 1922)**

1922. *Onychogomphus echinoccipitalis* Fraser, *Mem. Dept. Agric. India (Ent.)*, **7** (7) : 74-75.

1985. *Paragomphus echinoccipitalis*, Davies and Tobin, *The Dragonflies of the World: A Systematic list of the extant species of Odonata*, **2**: 47.

*Distribution:* Meghalaya: Shillong - Gauhati Road (Fraser, 1924e & 1934b), Northern Garo Hills: Rongrengiri, Songsok (Lahiri, 1987).

***Phaenandrogomphus aureus* (Laidlaw, 1922)**

1922. *Onychogomphus aureus* Laidlaw, *Rec. Indian Mus.*, **24** : 405-406.

1969. *Phaenandrogomphus aureus*, Lieftinck, *Dt. Ent. Zeit.*, **16** : 214.

*Distribution:* Arunachal Pradesh: Siang, Subansiri (Mitra, 2002b & 2006), Kane WLS, West Siang (Singh *et al.*, 2010); Meghalaya: Garo Hills: Tura (Laidlaw, 1922; Fraser, 1934b), Songeak (Lahiri, 1987).

*Remarks:* Tsuda (2000) mentioned this species from Myanmar. As the original reference of that distribution could not be traced, this species is treated here as endemic to India.

Family AESHNIDAE

***Aeshna flavifrons* Lichtenstein, 1796**

1985. *Aeshna flavifrons* Lichtenstein, Loc. Cit. Davies and Tobin, *The Dragonflies of the World*.

*Aeshna flavifrons* Lichtenstein, 1796: The actual year of publication is 1796 and not 1976 as mentioned in Prasad and Varshney (1995). All Lichtenstein's species ([www.odonata.info](http://www.odonata.info)) are forgotten, unused names for species not identified. According to the present nomenclature rules, these forgotten names are not valid and so the name is suppressed and removed from Indian list (Subramanian, 2009).

***Gynacantha andamanae* Yeh and Veenakumari, 2000**

2000. *Gynacantha andamanae* Yeh and Veenakumari, *Int. J. Odonatol.*, **3** (2) : 163-167.

*Distribution:* Andaman & Nicobar Islands: South Andaman: Mt. Harriet (Yeh and Veenakumari, 2000).

***Gynacantha arnaudi* Asahina, 1984**

1984. *Gynacantha arnaudi* Asahina, *Cho Cho*, **7** (11) : 2-7.

*Distribution:* Assam: West Digboi (Asahina, 1984b).

***Gynacantha bainbriggei* Fraser, 1922**

1922. *Gynacantha bainbriggei* Fraser, *Mem. Dept. Agric. India (Ent.)*, **8** : 75-76.

*Distribution*: Assam: Gauhati, Margherita (Fraser, 1922d & Fraser, 1936); West Bengal: Kolkata (Mitra, 2002b).

***Gynacantha biharica* Fraser, 1927**

1927. *Gynacantha biharica* Fraser, *Rec. Indian Mus.*, **29** : 74-75.

*Distribution*: Bihar: Pusa (Fraser, 1927).

***Gynacantha o'doneli* Fraser, 1922**

1922. *Gynacantha o'doneli* Fraser, *J. Bombay nat. Hist. Soc.*, **28** : 909-910.

*Distribution*: West Bengal: Duars: Hasimara Tea Estate (Fraser, 1922d).

***Gynacantha palampurica* Lahiri and Walia, 2007**

2007. *Gynacantha palampurica* Lahiri and Walia, *Rec. zool. Surv. India*, **107** (3) : 45-49.

*Distribution*: Himachal Pradesh: Kangra: Palampur: Andretta (Lahiri *et al.*, 2007).

***Gynacantha rammohani* Mitra and Lahiri, 1975**

1975. *Gynacantha rammohani* Mitra and Lahiri, *Ent. Rec. J. Var.*, **87** : 148-149.

*Distribution*: West Bengal: Kolkata (Mitra and Lahiri, 1975; Mitra, 2002b).

***Gynacantha rotundata* Navas, 1930**

1930. *Gynacantha rotundata* Navas, *Rev. Acad. Cienc. Zaragoza*, **13** : 29-31.

*Distribution*: Maharashtra: Mumbai (Navas, 1930).

***Oligoaeschna andamani* Chhotani, Lahiri and Mitra, 1983**

1983. *Oligoaeschna andamani* Chhotani *et al.*, *Rec. zool. Surv. India*, **80** (3) : 482-484.

*Distribution*: Andaman & Nicobar Islands: South Andaman (Chhotani *et al.*, 1983).

***Oligoaeschna khasiana* Lieftinck, 1968**

1968. *Oligoaeschna khasiana* Lieftinck, *Tijdsche. Ent.*, **111** : 137-186.

*Distribution*: Meghalaya: Khasi Hills (Lieftinck, 1968).

***Oligoaeschna speciosa* Karube, 1998**

1998. *Oligoaeschna speciosa* Karube, *Bull. Kanagawa prefect Mus. (Nat. Sci.)*, **27** : 81-83.

*Distribution*: West Bengal: Darjiling (Karube, 1998).

***Periaeschna flinti assamensis* Asahina, 1981**

1981. *Periaeschna flinti assamensis* Asahina, *Bull. Natn. Sci. Mus., Tokyo*, Ser. A, **7** (2): 64-65.

*Distribution*: Meghalaya: Khasi Hills (Asahina, 1981).

***Periaeschna lebasi* Navas, 1930**

1930. *Periaeschna lebasi* Navas, *Rev. Acad. Cienc. Zaragoza*, **13** : 29-31.

*Distribution*: West Bengal: Darjiling: Kurseong (Navas, 1930).

***Petaliaeschna fletcheri* Fraser, 1927**

1927. *Petaliaeschna fletcheri* Fraser, *Rec. Indian Mus.*, **29** : 73-74.

*Distribution*: Meghalaya: Khasi Hills: Shillong (Fraser, 1927); Sikkim (Fraser, 1927).

Superfamily CORDULEGASTEROIDEA  
Family CHOLROGOMPHIDAE

***Chlorogomphus brittoi* Navas 1934**

1934. *Chlorogomphus brittoi* Navas, *Rev. Acad. Cienc. Zaragoza*, **17** : 29-33.

*Distribution*: Type locality from India, exact locality unknown.

***Chlorogomphus campioni* (Fraser, 1924)**

1924. *Orogomphus campioni* Fraser, *Rec. Indian Mus.*, **26** : 467-469.

1931. *Chlorogomphus campioni*, Fraser, *Rec. Indian Mus.*, **33** : 447, 457.

*Distribution*: Karnataka: Coorg: Mercara (Fraser, 1924b), South Kanara (Kudremukh) (Fraser, 1931a, Bhasin, 1953); Kerala: Malabar: Vayitri Ghat (Fraser, 1931a), Wayanad (Emiliyamma *et al.*, 2007); Tamil Nadu: Nilgiri Hills: Gudalur Ghat (Fraser, 1931a).

*Remarks*: Lahiri (1987) reported this species from Meghalaya but no material was examined. Hence its occurrence in North east India is doubtful.

***Chlorogomphus fraseri* St. Quentin, 1936**

1936. *Chlorogomphus fraseri* St. Quentin, *Knowia*, **15** (1/2) : 103-104.

*Distribution*: Arunachal Pradesh: Kameng: NO-Grenze: Bhairakunda (Asahina, 1986); Manipur: Khunou: Luang-Iong, Nungba (Asahina, 1986); Meghalaya: Khasi Hills (Fraser, 1936); West Bengal: Darjiling: Kalimpong (St. Quentin, 1936; Fraser, 1936).

***Chlorogomphus preciosus fernandi* Asahina, 1986**

1986. *Chlorogomphus preciosus fernandi* Asahina, *Cho Cho*, **9** (1): 20-21.

*Distribution*: Meghalaya: Khasi and Jaintia Hills: Mawpran (Asahina, 1986).

***Chlorogomphus schmidtii* Asahina, 1986**

1986. *Chlorogomphus schmidtii* Asahina, *Cho Cho*, **9** (1): 23-24.

*Distribution*: Manipur: Khunou: Luang-Iong (Asahina, 1986).

***Chlorogomphus xanthoptera* (Fraser, 1919)**

1919. *Orogomphus xanthoptera* Fraser, *J. Bombay nat. Hist. Soc.*, **26** : 874-875.

1924. *Chlorogomphus xanthoptera*, Fraser, *Rec. Indian Mus.*, **26** : 427, 469.

*Distribution:* Kerala: Munnar (Fraser, 1931a); Tamil Nadu: Madurai Dist.: Cumbum (Fraser, 1919b), Anaimalai Hills, Tinnevely Hills (= Now Tirunelveli) (Fraser, 1936).

Family CORDULEGASTERIDAE

*Cordulegaster parvistigma* (Selys, 1873)

1873. *Thecagaster parvistigma* Selys, *Bull. Acad. Belg.* (2) 36: 508.

1894. *Cordulegaster parvistigma*, Selys, *Ann. Soc. Ent. Belg.*, p. 181.

*Distribution:* Himachal Pradesh: Simla Hills: Baghi (Fraser, 1923a), Shimla: Mashobra and Churdhar WLS; Chamba: Pangi Valley: Killar (Babu and Nandy, comm.); Uttarakhand: Tehri, Rudraprayag, Pauri Garhwal (Prasad and Sinha, 2010).

Superfamily LIBELLULOIDEA

Family CORDULIIDAE

*Idionyx corona burliyarensis* Fraser, 1924

1924. *Idionyx corona burliyarensis* Fraser, *Rec. Indian Mus.*, 26 : 461-462.

1924. *Idionyx corona fulvia*, Fraser, *Rec. Indian Mus.*, 26 : 516-517.

1926. *Idionyx burliyarensis*, Fraser, *Rec. Indian Mus.*, 28 : 196-198.

2000. *Idionyx corona burliyarensis*, Tsuda, *A Distributional list of World Odonata*, p.138.

*Distribution:* Karnataka: Coorg, South Kanara (Fraser, 1924b & 1931a); Kerala: Malabar, Travancore (Fraser, 1931a), Kozhikode (Emiliyamma *et al.*, 2007), Silent valley National Park : Walakkad (Subramanian *et al.*, 2013); Tamil Nadu: Anaimalai and Mudis Hills, Nilgiri Hills: Burliyar River (Fraser, 1924b & 1931a).

*Idionyx corona corona* Fraser, 1921

1921. *Idionyx corona* Fraser, *J. Bombay nat. Hist. Soc.*, 27 : 690-691.

1924. *Idionyx corona corona*, Fraser, *Rec. Indian Mus.*, 26 : 462.

*Distribution:* Karnataka: Coorg; South Kanara: Chikkamagalur: Bababuddin Hills; Saklespur Ghats: Shiradi (Fraser, 1921b, 1924b, 1931a & 1936).

*Idionyx galeata* Fraser, 1924

1924. *Idionyx galeata* Fraser, *Rec. Indian Mus.*, 26 : 517- 519.

*Distribution:* Karnataka: Coorg: Mercara: Katlkad Estate; South Kanara: Kudremukh (Fraser, 1924b); Kerala : Wayanad : Kurichiarmala (Subramanian *et al.*, 2013).

*Idionyx gomantakensis* Subramanian, Rangnekar and Naik, 2013

2013. *Idionyx gomantakensis* Subramanian *et al.*, *Zootaxa*, 3652(2) : 277-288.

*Distribution:* Goa : South Goa district: Kulem (=Collem) (Subramanian *et al.*, 2013).

*Idionyx imbricata* Fraser, 1926

1926. *Idionyx imbricata* Fraser, *Rec. Indian Mus.*, 28 : 205-206.

*Distribution:* Meghalaya: Shillong (Fraser, 1926c & 1934a); Mizoram: Kolasib (Prasad, 1997a and 2007a).

***Idionyx intricata* Fraser, 1926**

1926. *Idionyx intricata* Fraser, *Rec. Indian Mus.*, **28** : 202-203.

*Distribution*: Meghalaya: Khasi Hills: Cherrapunjee, (Fraser, 1926c & 1934a).

***Idionyx minima* Fraser, 1931**

1931. *Idionyx minima* Fraser, *Rec. Indian Mus.*, **33** : 453-455.

*Distribution*: Wayanad: Muthanga (Subramanian *et al.*, 2013).

***Idionyx nadganiensis* Fraser, 1924**

1924. *Idionyx nadganiensis* Fraser, *Rec. Indian Mus.*, **26** : 460.

*Distribution*: Tamil Nadu: Nilgiri Hills: Pandalur (near Nilgiri- Malabar border: Nadgani Ghat) (Fraser, 1924b).

***Idionyx nilgiriensis* (Fraser 1918)**

1918. *Phyllomacromia nilgiriensis* Fraser, *J. Bombay nat. Hist. Soc.*, **25** : 383-384.

1924. *Idionyx nilgiriensis*, Fraser, *Rec. Indian Mus.*, **26** : 460-461.

2009. *Idionyx nilgiriensis*, Subramanian, *Dragonflies of India, A Field Guide*, p. 157.

*Distribution*: Tamil Nadu: Nilgiri Hills: Foot of Nilgiri Hills above Kallar, Burliyar River (Fraser, 1918 & 1924b).

***Idionyx periyashola* Fraser, 1939**

1939. *Idionyx periyashola* Fraser, *Proc. Roy. Ent. Soc. London*, (B) **8** : 93-94.

*Distribution*: Kerala: Travancore: Western Ghat out from Manar (Fraser, 1939).

***Idionyx rhinocerooides* Fraser, 1934**

1934. *Idionyx rhinocerooides* Fraser, *J. Bombay nat. Hist. Soc.*, **37** : 565.

*Distribution*: Kerala: South Malabar: Mannar Ghat: Dhoni (Fraser, 1934a), Kozhikode (Emiliyamma *et al.*, 2007).

***Idionyx saffronata* Fraser, 1924**

1924. *Idionyx saffronata* Fraser, *Rec. Indian Mus.*, **26** : 458-460.

*Distribution*: Goa: Dudhsagar (Rangnekar *et al.*, 2010); Karnataka: Coorg: Mercara (Fraser, 1924b; Bhasin, 1953); Kerala: South Malabar, Travancore (Fraser, 1931a, 1934a & 1936), Kozhikode, Wayanad (Emiliyamma *et al.*, 2007), Silent Vally National Park : Walakkad (Subramanian *et al.*, 2013); Tamil Nadu: Anaimalai and Mudis Hills, Nilgiri Hills (Fraser, 1931a).

***Idionyx travancorensis* Fraser, 1931**

1931. *Idionyx travancorensis* Fraser, *Rec. Indian Mus.*, **33** : 455- 456.

*Distribution*: Kerala: Travancore: Munnar (Fraser, 1931a & 1936), Kozhikode (Emiliyamma *et al.*, 2007); Tamil Nadu: Anaimalai and Mudis Hills (Fraser, 1931a).

***Macromidia donaldi* (Fraser, 1924)**

1924. *Indomacromia donaldi* Fraser, *Rec. Indian Mus.*, **26** : 515- 516.

1931. *Macromidia donaldi*, Fraser, *Rec. Indian Mus.*, **33** : 447, 456.

*Distribution*: Karnataka: Coorg: Sampaji Ghat and banks of Cauvery River near Fraserpet; South Kanara; Kerala: South Malabar: Tamaracherri (Fraser, 1924b, 1931a & 1936).

***Somatochlora daviesi* Lieftinck, 1977**

1977. *Somatochlora daviesi* Lieftinck, *Oriental Insects*, **11** (2) : 157-161.

*Distribution*: Meghalaya: Khasi Hills (Lieftinck, 1977).

## Family MACROMIIDAE

***Epophthalmia frontalis binocellata* (Fraser, 1924)**

1924. *Macromia binocellata* Fraser, *Rec. Indian Mus.*, **26** : 451-452.

1931. *Azuma frontalis*, Fraser, *Rec. Indian Mus.*, **33** : 447, 452.

1935. *Epophthalmia frontalis malabarensis*, Fraser, *Rec. Indian Mus.*, **37** : 328-329.

1936. *Epophthalmia frontalis binocellata*, Fraser, *Fauna Brit. India, Odonata*, **3** : 199-201.

*Distribution*: Kerala: Malabar: Kozhikode, Tamaracherri, Vayitri Ghat, Walayar Forest (Fraser, 1931a & 1936); Tamil Nadu: Palni Hills (Fraser, 1924b), Coimbatore Dist. (Fraser, 1936).

***Epophthalmia vittata vittata* Burmeister, 1839**

1839. *Epophthalmia vittata* Burmeister, *Handb. Ent.*, **2** : 845.

1936. *Epophthalmia vittata vittata*, Fraser, *Fauna Brit. India, Odonata*, **3** : 194-196.

*Distribution*: Andhra Pradesh: Eastern Ghats (Waltair) (Fraser, 1936), East Godavari (Prasad, 2007b); Karnataka: Coorg; Kerala: Cochin, Malabar, Walayar Forest (Fraser, 1931a & 1936); Maharashtra: Poona, Khandala, Mahabaleshwar (Fraser, 1924b & 1936), Nagpur: Pench National Park (Kulkarni *et al.*, 2004), Pune (Babu and Nandy, 2010a); Meghalaya: Khasi Hills: Umpling (Srivastava and Sinha, 1995); Tamil Nadu: Coimbatore Dist, Nilgiri Hills (Fraser, 1931a & 1936), Madras (Lieftinck, 1954); Uttarakhand: Almora (Kumar and Prasad, 1981), Bhatronj (Bhasin, 1953) .

***Macromia annaimalaiensis* Fraser, 1931**

1931. *Macromia annaimalaiensis* Fraser, *Rec. Indian Mus.*, **33** : 452- 453.

*Distribution*: Tamil Nadu: Anaimalai and Mudis Hills (Fraser, 1931a & 1936).

***Macromia bellicosa* Fraser, 1924**

1924. *Macromia bellicosa* Fraser, *Rec. Indian Mus.*, **26** : 453- 454.

*Distribution*: Karnataka: Coorg: Cannanore Ghat, Hatti River; South Kanara: Kudremukh (Fraser, 1924b & 1936).

***Macromia ellisoni* Fraser, 1924**

1924. *Macromia ellisoni* Fraser, *Rec. Indian Mus.*, **26** : 457- 458.

*Distribution*: Karnataka: Coorg, South Kanara (Fraser, 1931a); Tamil Nadu: Nilgiri Hills: Sigur, Devalashola (Fraser, 1924b).

***Macromia flavovittata* Fraser, 1935**

1935. *Macromia flavovittata* Fraser, *Rec. Indian Mus.*, **37** : 326-328.

*Distribution*: West Bengal: Darjiling: Mongpu (above the Teesta Valley) (Fraser, 1935).

***Macromia ida* Fraser, 1924**

1924. *Macromia ida* Fraser, *Rec. Indian Mus.*, **26** : 449- 450.

*Distribution*: Karnataka: Coorg: Bhagmandala; South Kanara; Tamil Nadu: Nilgiri Hills: Gudalur (Fraser, 1924b).

***Macromia indica* Fraser, 1924**

1924. *Macromia indica* Fraser, *Rec. Indian Mus.*, **26** : 448-449.

*Distribution*: Karnataka: Coorg: Fraserpet, banks of Cauvery; South Kanara (Fraser, 1924b & 1936), Kudremukh National Park (Emiliyamma and Radhakrishnan, 2007); Tamil Nadu: Nilgiri Hills: Gudalur, Sigur and Burliyar (Fraser, 1924b).

***Macromia irata* Fraser, 1924**

1924. *Macromia irata* Fraser, *Rec. Indian Mus.*, **26** : 454- 455.

*Distribution*: Karnataka: Coorg: Bhagmandala; South Kanara (Fraser, 1924b & 1936), Bettaferi (Bhasin, 1953); Kerala: Malabar: Wayanad (Vayitri) (Fraser, 1936).

***Macromia miniata* Fraser, 1924**

1924. *Macromia miniata* Fraser *Rec. Indian Mus.*, **26** : 450-451.

*Distribution*: Karnataka: Coorg: Top of the Cannanore Ghat and Somwarpet (Fraser, 1924b); Kerala: Malabar (Fraser, 1931a).

*Remarks*: Fraser (1936) synonymised to *M. flavocolorata* but Tsuda (2000) reinstated. Kimmins (1966) quoted that Dr. Lieftinck also considers *M. miniata* to be distinct from *M. flavocolorata*.

***Macromia whitei* Selys, 1871**

1871. *Macromia whitei* Selys, *Bull. Acad. Belg.* (2) **31**: 555.

*Distribution*: Type locality Bengal, India (Steinmann, 1997)

## Family LIBELLULIDAE

***Epithemis mariae* (Laidlaw, 1915)**

1915. *Amphithemis mariae* Laidlaw, *Rec. Indian Mus.*, **11** : 337-339.

1955. *Epithemis mariae*, Laidlaw, *Entomologist's month Magaz.*, **91** : 287.

*Distribution:* Karnataka: Coorg: Cannanore Ghat, Makut Ghat, Cowcolle (Fraser, 1924b, 1936), Kudremukh National Park (Emiliyamma and Radhakrishnan, 2007); Kerala: Parambikulam (Laidlaw, 1915), South Malabar: Vayitri Ghat and Tamaracherri (Fraser, 1924b, 1931a & 1936), Idukki (WLS), Kasaragod, Palakkad (Parambikulam WLS) (Emiliyamma and Radhakrishnan, 2000; Emiliyamma *et al.*, 2007); Tamil Nadu: Coimbatore: Siruvani (Fraser, 1936).

***Hylaeothemis indica* Fraser, 1924**

1924. *Hylaeothemis fruhstorferi apicalis* Fraser, *Rec. Indian Mus.*, **26** : 430

1946. *Hylaeothemis indica*, Fraser, *Proc. Roy. Ent. Soc. Lond.*, (B) **15** (7/8) : 97-100.

2000. *Hylaeothemis fruhstorferi apicalis*, Tsuda, *A Distributional List of World Odonata*, p. 158.

*Distribution:* Karnataka: Coorg: Bhagmandala, Sampaji Ghat and Hallery Estate near Mercara (Fraser, 1924b); Kerala: Cochin, Malabar, Travancore (Fraser, 1931a), Kozhikode, Wayanad (Emiliyamma *et al.*, 2007); Orissa: Kotagarh (Mitra, 2002b); Tamil Nadu: Anaimalai, Nilgiris: Burliyar (Fraser, 1918 & 1931a, 1946; Bhasin, 1953).

*Remarks:* (1) Lahiri (1985), reported this species from Namdhapa Wildlife Sanctuary: Gibbons Land (Arunachal Pradesh), but probably it is *H. gardeneri* fresh collection is required to confirm the identification.

(2) Fraser (1946) redescribed Indian *Hylaeothemis fruhstorferi* as *H. indica*, but Tsuda (2000) reinstated.

***Hylaeothemis gardeneri* Fraser, 1927**

1927. *Hylaeothemis gardeneri* Fraser, *Rec. Indian Mus.*, **29** : 66- 67.

*Distribution:* Nagaland: Naga Hills (Kimmins, 1966); Uttarakhand: Himalayas: Kampison (Fraser, 1927).

***Orthetrum martensi* Asahina, 1978**

1978. *Orthetrum martensi* Asahina, *Senckenbergiana Biol.*, **59** (1/2) : 116-118.

*Distribution:* Jammu and Kashmir: Ladakh: Kargil, Shey; Kashmir: Gilgit (Asahina, 1978a).

***Sympetrum durum* Bartenef, 1915**

1915. *Sympetrum durum* Bartenef, *Petrograd. Livr.*, **1**: 1-352.

*Distribution:* India, exact locality unknown.

***Sympetrum himalayanum* Navas, 1934**

1934. *Sympetrum himalayanum* Navas, *Rev. Acad. Cienc. Zaragoza*, **17** : 29-33.

*Distribution:* West Bengal: Darjiling: Kurseong (Navas, 1934).

***Zygonyx iris davina* Fraser, 1926**

1926. *Zygonyx iris davina* Fraser, *J. Bombay nat. Hist. Soc.*, **31** : 768-769.

*Distribution:* West Bengal: Darjiling: Pashok (Fraser, 1926d), Kurseong (Kimmins, 1966); Meghalaya: Khasi Hills: Shillong (Fraser, 1936), Cherrapunji (St. Quentin, 1937).

***Zygonyx iris intermedia* Lahiri, 1987**

1987. *Zygonyx iris intermedia* Lahiri, *Rec. zool. Surv. India, Occ. Pap. No. 99* : 216-217.

*Distribution*: Meghalaya: Northern Khasi Hills: Barapani, Nongpoh (Lahiri, 1987).

***Zygonyx iris malabarica* Fraser, 1926**

1926. *Zygonyx iris malabarica* Fraser, *J. Bombay nat. Hist. Soc.*, **31** : 764-766.

*Distribution* : Karnataka: Coorg, South Kanara (Fraser, 1926d, 1931a & 1936); Kerala: Malabar, Travancore (Fraser, 1931a & 1936), Palakkad (Parambikulam WLS) (Emiliyamma and Radhakrishnan, 2000), Kannur (Aralam WLS), Kozhikode, Wayanad, (Emiliyamma et al., 2007); Tamil Nadu: Anaimalai and Mudis Hills, Chingleput Hills, Nilgiri Hills, Palni Hills and Shevaroy Hills (Fraser, 1926d, 1931a & 1936), Coonur Road (Bhasin, 1953).

***Zygonyx iris metallica* Fraser, 1931**

1931. *Zygonyx iris metallica* Fraser, *Rec. Indian Mus.*, **33** : 450-451.

*Distribution*: Kerala: South Malabar: Vayitri Ghat (Fraser, 1931a).

**DISCUSSION**

Among the 503 species/subspecies of Indian Odonata, 186 species/subspecies (approx. 37%) belonging to 67 genera are endemic to India. A good number of these species/subspecies are restricted in two biodiversity hotspots of India, Western Ghats and North east India. 76 species/subspecies are confined to Western Ghats only and 55 species/subspecies to North east India. Eight genera are also recorded as endemic to India consisting five Zygoptera genera i.e., *Caconeura*, *Esme*, *Melanoneura*, *Phylloneura* and *Calocypha* and three Anisoptera genera i.e., *Davidioides*, *Dubito gomphus* and *Epithemis*. The genus *Dubito gomphus* is endemic to Eastern Himalaya and *Caconeura* to peninsular India. All other genera are restricted to the Southern Western Ghats.

A total 80 species and subspecies of Zygoptera are endemic to India. Among this 38 species are distributed in Western Ghats and 33 species are recorded from Eastern Himalaya. Only 5 species are recorded from Western Himalaya, 14 species are from Peninsular India and 6 species from Andaman and Nicobar Islands. The Eastern Himalaya have representatives of all the families so far reported from India. The families such as Megapodagrionidae and Synlestidae are found only in this region. Out of 106 species and subspecies of Anisoptera that are endemic to India, 54 species are distributed in the Western Ghats, 35 in Eastern Himalaya and 12 species in Peninsular India. Among 53 species, 28 species of Gomphids and 12 species of Corduliids are exclusive to Western Ghats region (Table-1).

Most of these endemic species have restricted distribution, confined to some part of the country, either Southern India or North East India / North India with exception of few species like *Agriocnemis splendidissima*, *Agriocnemis pieris*, *Disparoneura quadrimaculata* and *Rhinocypha bisignata*.

Some species/subspecies were previously known as endemic (Mitra, 2002a) but recent literature shows their distribution from neighbouring countries like Pakistan, Nepal, Bhutan,

Table-01 : Geographic Distribution of Endemic Odonata of India.

Superfamily	Family	EH	WH	WG	A&N	PI
<b>Suborder: ZYGOPTERA</b>						
Coenagrionoidea	Coenagrionidae	4	3	6	1	3
	Platycnemididae	8	1	1	-	1
	Platystictidae	2	1	8	1	-
	Protoneuridae	2	-	13	1	6
Lestoidea	Lestidae	4	-	2	-	1
	Megapodagrionidae	1	-	-	-	-
	Synlestidae	2	-	-	-	-
Calopterygoidea	Calopterygeidae	2	-	2	-	1
	Chlorocyphidae	3	-	2	3	1
	Euphaeidae	5	-	4	-	1
	<b>Total</b>	<b>33</b>	<b>5</b>	<b>38</b>	<b>6</b>	<b>14</b>
<b>Suborder: ANISOPTERA</b>						
Aeshnoidea	Gomphidae	17	4	28	2	7
	Aeshnidae	7	1	-	2	3
Cordulegasteroidea	Chlorogomphidae	3	-	2	-	-
	Cordulegasteridae	-	1	-	-	-
Libelluloidea	Corduliidae	3	-	12	-	-
	Macromiidae	2	1	8	-	2
	Libellulidae	3	2	4	-	-
	<b>Total</b>	<b>35</b>	<b>9</b>	<b>54</b>	<b>4</b>	<b>12</b>

Legend : EH: Eastern Himalaya; WH: Western Himalaya; WG: Western Ghats; A&N: Andaman and Nicobar Islands; PI: Peninsular India.

Myanmar and Thailand. The species/subspecies are excluded from the endemic list based on updated distribution (in parenthesis) are as following: *Ischnura inarmata* [Pakistan - Mitra and Babu, 2009], *Ischnura rufostigma rufostigma* [Nepal - Ushijima, 2002], *Pseudagrion hypermelas* [Pakistan - Khaliq and Yusuf, 1993], *Copera vittata serapica* [Bangladesh - Tsuda, 2000; Myanmar - Fraser, 1933b ], *Disparoneura canningi* [Sri Lanka - Fraser, 1924b], *Lestes malabaricus* [ Sri Lanka - Tsuda, 2000], *Sympecna annulata kashmirensis* [Afganistan, Iraq - Tsuda, 2000], *Megalestes irma* [Nepal - Asahina, 1985b], *Anisopleura subplatystyla* [Thailand - Tsuda, 2000], *Bayadera hyalina* [Thailand - Tsuda, 2000], *Burmagomphus hasimaricus* [Nepal - Tsuda, 2000, Ushijima, 2002], *Davidius davidii assamensis* [Nepal - Asahina, 1994], *Davidius zallorensis* [Nepal - Asahina, 1994 ], *Ictinogomphus kishori* [Nepal - Vick, 1989], *Macrogomphus abnormis* [Type locality Borneo - Steinmann, 1997], *Merogomphus*

*martini* [Myanmar - Fraser, 1934b; Bangladesh - Tsuda, 2000], *Onychogomphus thienemanni* [Indonesia and Malaysia, Type locality Java - Steinmann, 1997], *Gynacantha apicalis* [Lyllapur, presently in Pakistan - Fraser, 1927, 1934b], *Zygonyx torrida isis* [Salt ranges, presently in Pakistan - Fraser, 1934b]. Recently *Anaciaeschna kashmirensis* is synonymized to *Anaciaeschna jaspidea* which is not endemic to India.

Tsuda (2000) mentioned the distribution of three species as from India but actually those species were recorded from outside India as *Asiagomphus motuoensis* [Tibet - Chao, 1990, not Indian species], *Rhinocypha trimaculata* [Tibet - Fraser, 1934b] and *Onychogomphus striatus* [Nepal - Vick, 1989; Ushijima, 2002].

### SUMMARY

The paper deals with an updated list of 186 species /subspecies belonging to 67 genera of Odonates endemic to India have been compiled alongwith distribution of each taxon with respective citations. The distributions of more number of endemic species/subspecies are restricted in two biodiversity hotspots of India, Western Ghats and North east India.

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